ORDER NO.CHM0602004CE

Service Manual

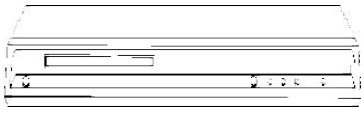
DVD Player

DVD-S32EB / DVD-S32GN / DVD-S32PX

DL4.5 Mechanism Series

Color

(S).....Silver Type



SPECIFICATIONS

Specifications

Power supply:	AC230-240 V, 50 Hz (DVD-S32EB/GN) AC110-240 V, 50/60 Hz (DVD-S32PX)
Power consumption:	10 W
Power consumption in standby mode:	approx. 1 W
Dimensions:	430 (W) × 251 (D) × 43 (H) mm
Mass:	2.2 kg (approx.)
Signal system:	PAL 625/50, PAL 525/60, NTSC (DVD-S32EB/GN) NTSC (DVD-S32PX)
Operating temperature range:	+ 5 to + 35 °C
Operating humidity range:	5 to 90 % RH (no condensation)

Discs played [8 cm (3 ”) or 12 cm (5 ”)]:

(1) DVD (DVD-Video)

(2) DVD-R (DVD-Video, MP3*2,4, JPEG*3,4)

(3) DVD-RW (DVD-Video, MP3*2,4, JPEG*3,4)

(4) +R/+RW (Video)

(5) CD, CD-R / CD-RW (CD-DA, Video CD, SVCD*1, MP3*2,4, JPEG*3,4)

(6) DVD-R DL (DVD-Video)

(7) +R DL (Video)

*1 Conforming to IEC62107

*2 MPEG-1 Layer 3, MPEG-2 Layer 3

*3 Exif Ver2.1 JPEG Baseline files
Picture resolution: between 320 × 240 and 6144 × 4096 pixels (Sub sampling is 4:2:2 or 4:2:0)

***4 The total combined maximum number of recognizable audio and picture contents and groups: 1000 audio and picture contents and 256 groups.**

Video output:	
Output level:	**1 Vp-p (75)**
Output terminal:	**Pin jack (1 system)** **(DVD-S32GN/PX)** **Pin jack (1 system)/AV** **(DVD-S32EB)**
S video output:	
Y output level:	**1 Vp-p (75)**
C output level:	**0.286 Vp-p (75)** **(DVD-S32PX)** **NTSC: 0.286 Vp-p (75)** **PAL: 0.300 Vp-p (75)** **(DVD-S32EB/GN)**
Output terminal:	**S terminal (1 system)** **(DVD-S32GN/PX)** **AV** **(DVD-S32EB)**
Component video output:	**[NTSC: 525(480)p/525(480)i,** **PAL: 625(576)p/625(576)i]** **(DVD-S32EB/GN)** **[NTSC: 525(480)p/525(480)i]** **(DVD-S32PX)**
Y output level:	**1 Vp-p (75)**
P B output level:	**0.7 Vp-p (75)**
P R output level:	**0.7 Vp-p (75)**
Output terminal:	**Pin jack (Y: green, P B : blue,** **P R : red)**
Number of terminals:	**1 system**
RGB video output:	**(DVD-S32EB)**
R output level:	**0.7 Vp-p (75)**
G output level:	**0.7 Vp-p (75)**
B output level:	**0.7 Vp-p (75)**
Output terminal:	**AV**
Video performance:	
Horizontal resolution:	**More than 500 lines**
Video S/N ratio:	**More than 65dB**
Audio output:	
Output level:	**2 Vrms (1 kHz, 0 dB)**
Output terminal:	**Pin jack** **(DVD-S32GN/PX)** **Pin jack/AV** **(DVD-S32EB)**
Number of terminals:	
2 channel:	**1 system**
Audio performance:	
(1) Frequency response:	
DVD (linear audio):	**4 Hz-22 kHz (48 kHz sampling)** **4 Hz-44 kHz (96 kHz sampling)**

● CD audio:		4 Hz-20 kHz
(2) S / N ratio:		
● CD audio:		115 dB
(3) Dynamic range:		
● DVD (linear audio):		92 dB
● CD audio:		90 dB
(4) Total harmonic distortion:		
● CD audio:		0.003 %
Digital audio output:		
Coaxial digital output:		Pin jack
Pickup		
Wave length:		653 nm / 790 nm
Laser power:		CLASS 1 / CLASS 3A

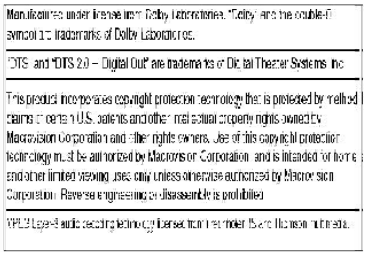
Note:

Specifications are subject to change without notice.

Mass and dimensions are approximate.

Solder:

This model uses lead free solder (PbF).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1. SAFETY PRECAUTIONS

1.1. GENERAL GUIDELINES

1. When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
2. After servicing, see to it that all the protective devices such as

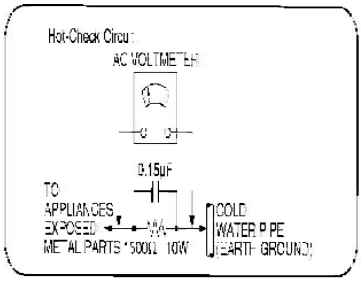
insulation barriers, insulation papers shields are properly installed.

3. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

1.1.1. LEAKAGE CURRENT COLD CHECK

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. Measure the resistance value, with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads, connectors, control shafts, etc. When the exposed metallic part has a return path to thechassis, the reading should be between 1M Ω and 5.2M Ω . / When the exposed metal does not have a return path to the chassis, the reading must be .

Figure 1



1.1.2. LEAKAGE CURRENT HOT CHECK (See Figure 1 .)

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Connect a 1.5k , 10 watts resistor, in parallel with a 0.15 F capacitors, between each exposed metallic part on the set and a good earth ground such as a water pipe, as shown in Figure 1.
3. Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reverse the AC plug in the AC outlet and repeat each of the above measurements.
6. The potential at any point should not exceed 0.75 volts RMS. A leakage current tester (Simpson Model 229 or equivalent) may be used to make the hot checks, leakage current mu3st not exceed 1/2 milliamp. In case a measurement is outsideof the limits specified, there is a possibility of

a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.

2. PREVENTION OF ELECTRO STATIC DISCHARGE (ESD) TO ELECTROSTATICALLY SENSITIVE (ES) DEVICES

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistorsand semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by electro static discharge (ESD).

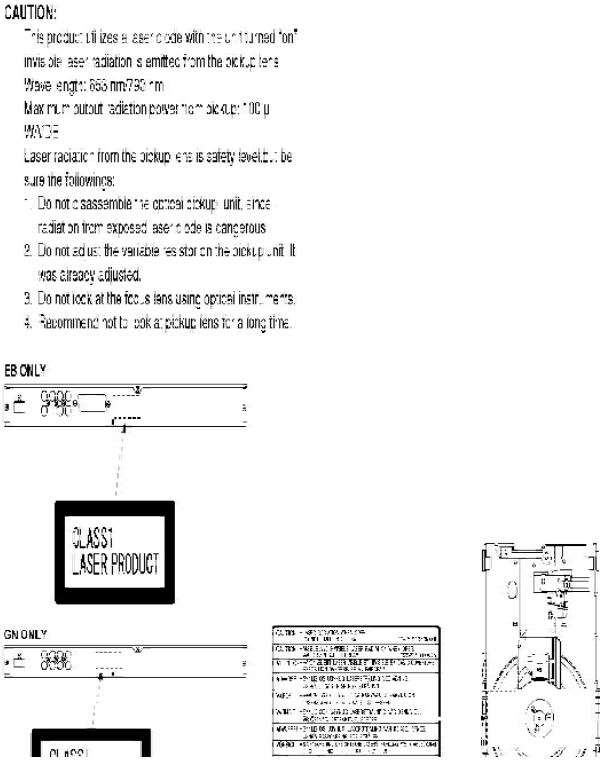
1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any ESD on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available dischargingESD wrist strap, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as alminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static solder removal device. Some solder removal devices not classified as "anti-static (ESD protected)" can generate electrical charge sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, alminum foil or comparableconductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

   Caution

   Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise hamless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity (ESD) sufficient todamage an ES device).

3. PRECAUTION OF LASER DIODE



4. SERVICE CAUTION BASED ON LEGAL RESTRICTIONS

4.1. General description about Lead Free Solder (PbF)

The lead free solder has been used in the mounting process of all electrical components on the printed

circuit boards used for this equipment in considering the globally environmental conservation. The normal solder is the alloy of tin (Sn) and lead (Pb). On the other hand, the lead free solder is the alloy mainly consists of tin (Sn), silver (Ag) and Copper (Cu), and the melting point of the lead free solder is higher approx.30°C (86°F) more than that of the normal solder.

Definition of PCB Lead Free Solder being used

The letter of "PbF" is printed either foil side or components side on the PCB using the lead free solder. (See right figure)	PbF

Service caution for repair work using Lead Free Solder (PbF)

- **The lead free solder has to be used when repairing the equipment for which the lead free solder is used. (Definition: The letter of "PbF" is printed on the PCB using the lead free solder.)**
- **To put lead free solder, it should be well molten and mixed with the original lead free solder.**
- **Remove the remaining lead free solder on the PCB cleanly for soldering of the new IC.**
- **Since the melting point of the lead free solder is higher than that of the normal lead solder, it takes the longer time to melt the lead free solder.**
- **Use the soldering iron (more than 70W) equipped with the temperature control after setting the temperature at 350±30°C (662±86°F).**

Recommended Lead Free Solder (Service Parts Route.)

The following 3 types of lead free solder are available through the service parts route.

- **RFKZ03D01K----------(0.3mm 100g Reel)**
- **RFKZ06D01K----------(0.6mm 100g Reel)**
- **RFKZ10D01K----------(1.0mm 100g Reel)**

Note

*** Ingredient: tin (Sn) 96.5%, silver (Ag) 3.0%, Copper (Cu) 0.5%, Cobalt (Co) / Germanium (Ge) 0.1 to 0.3%**

5. PREVENTION OF STATIC ELECTRICITY DISCHARGE

The laser diode in the traverse unit (optical pickup) may brake down due to static electricity of clothes or human body. Use due caution to electrostatic breakdown when servicing and handling the laser diode.

5.1. Grounding for electrostatic breakdown prevention

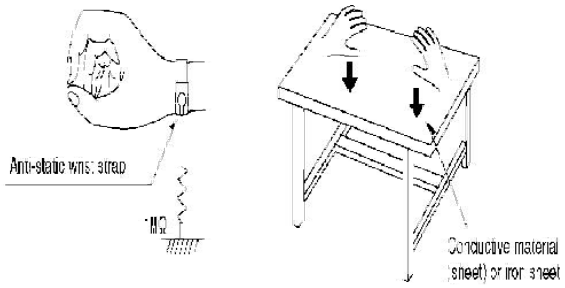
Some devices such as the DVD player use the optical pickup (laser diode) and the optical pickup will be damaged by static electricity in the working environment. Proceed servicing works under the working environment where grounding works is completed.

5.1.1. Worktable grounding

1. Put a conductive material (sheet) or iron sheet on the area where the optical pickup is placed, and ground the sheet.

5.1.2. Human body grounding

1. Use the anti-static wrist strap to discharge the static electricity form your body.



5.1.3. Handling of optical pickup

1. To keep the good quality of the optical pickup maintenance parts during transportation and before installation, the both ends of the laser diode are short-circuited. After replacing the parts with new ones, remove the short circuit accordingto the correct procedure. (See this Technical Guide.)
2. Do not use a tester to check the laser diode for the optical pickup. Failure to do so will damage the laser diode due to the power supply in the tester.

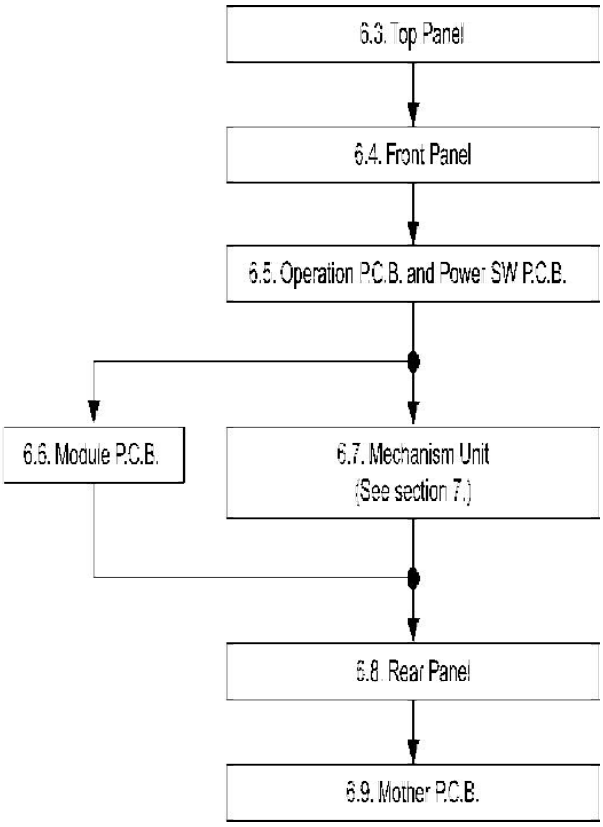
5.2. Handling Precautions for Traverse Unit (Optical Pickup)

1. Do not give a considerable shock to the traverse unit (optical pickup) as it has an extremely high-precise structure.
2. When replacing the optical pickup, install the flexible cable and cut its short land with a nipper. See the optical pickup replacement procedure in this Technical Guide. Before replacing the traverse unit, remove the short pin for preventingstatic electricity and install a new unit. Connect the connector as short times as possible.
3. The flexible cable may be cut off if an excessive force is applied to it. Use caution when handling the cable.
4. The half-fixed resistor for laser power adjustment cannot be adjusted. Do not turn the resistor.

6. DISASSEMBLING THE CASING AND CHECKING

P.C.B.S

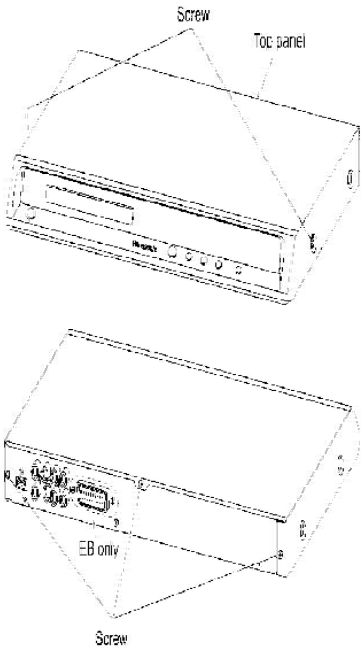
6.1. Disassembly Procedure



6.2. Casing Parts and P.C.B. Positions

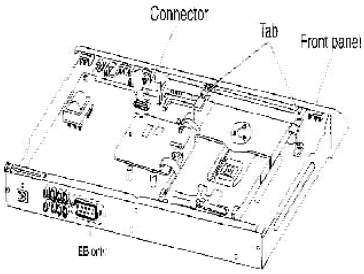
6.3. Top Panel

1. Unscrew the screws.



6.4. Front Panel

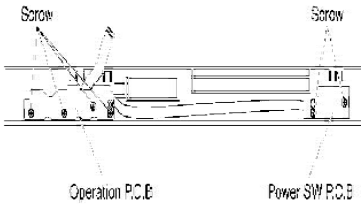
1. Release the tabs and connector.



2. Release the tabs.

6.5. Operation P.C.B. and Power SW P.C.B.

1. Unscrew the screws.

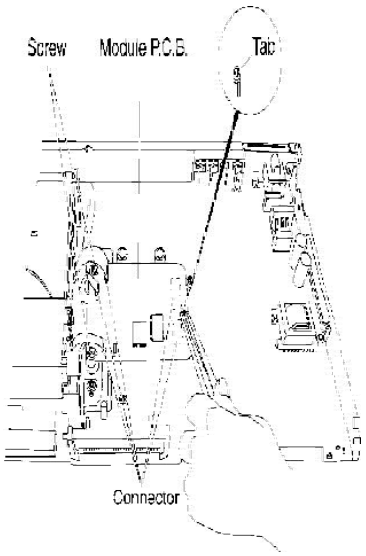


6.6. Module P.C.B.

1. Remove the connectors.

2. Unscrew the screws.

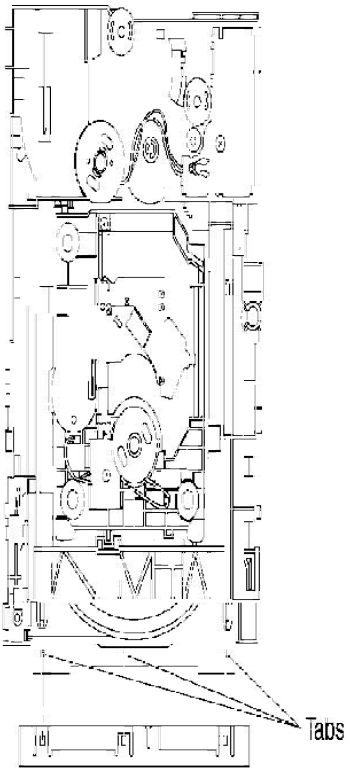
3. Press each tab with the nipper to module PCB vertically.



6.7. Mechanism Unit

1. Unscrew the screws.

2. Release the tabs.



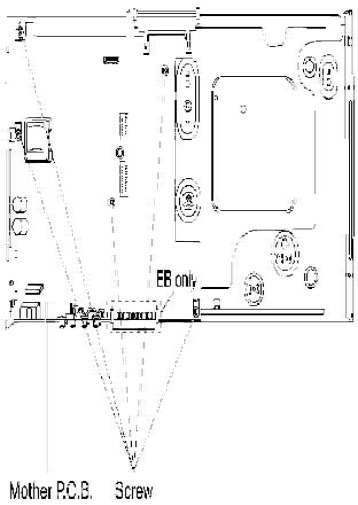
6.8. Rear panel

1. Unscrew the screws

2. Release the tabs.

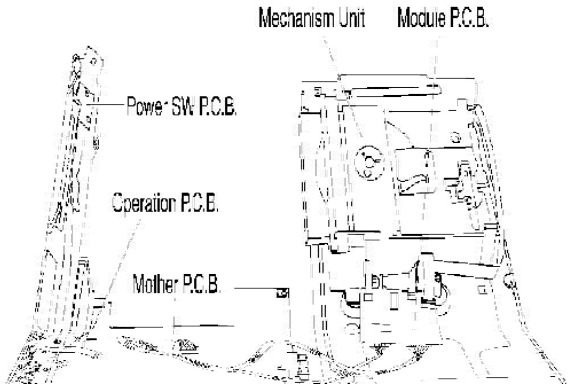
6.9. Mother P.C.B.

1. Unscrew the screws.

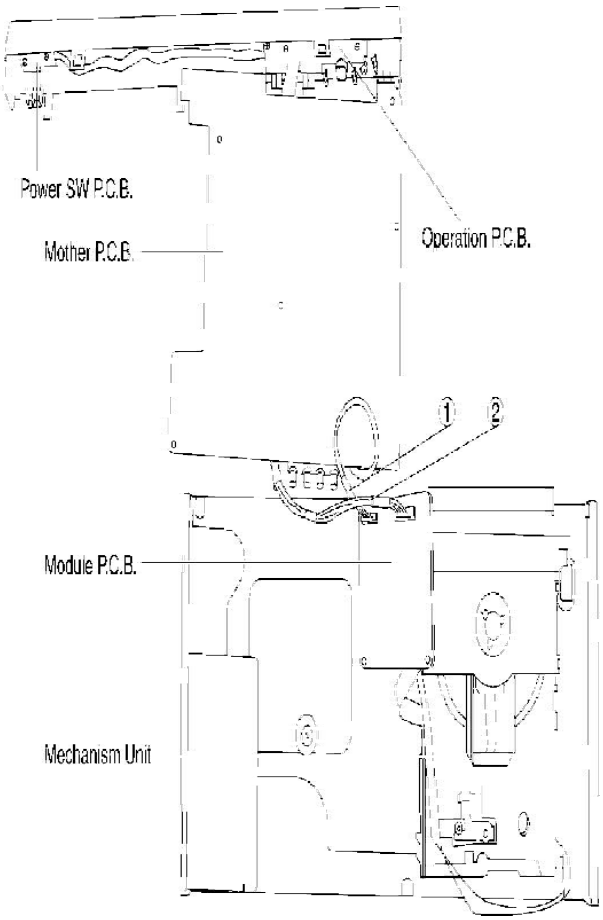


6.10. Service Position

6.10.1. Servicing position of the Module P.C.B.



6.10.2. Servicing position of the Mother P.C.B.

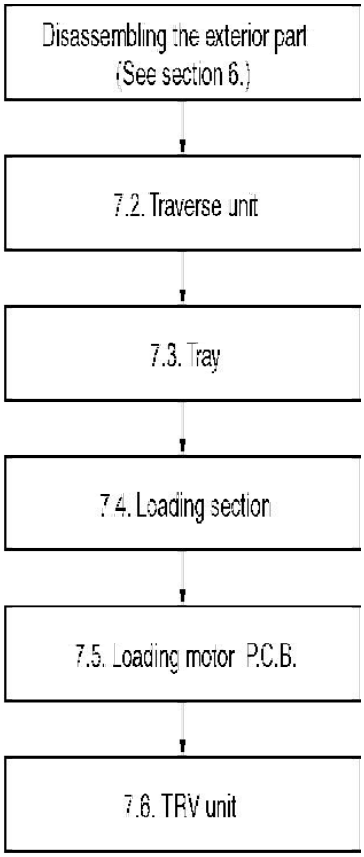


6.10.3. List of the Extension Cables

①	VUC8026	14p ns	PSB101(Module P.C.B.)—FP3501(Mother P.C.B.)
②	RFKZ0106	20p ns	PS8301(Module P.C.B.)—FP3502(Mother P.C.B.)

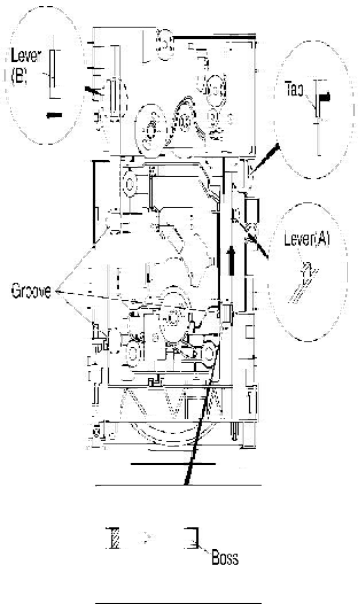
7. ASSEMBLING AND DISASSEMBLING THE MECHANISM UNIT

7.1. Disassembly Procedure

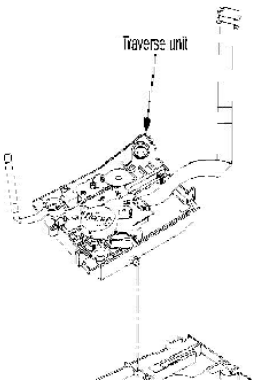


7.2. Traverse Unit

1. **Slide the lever (A) in the arrow direction (to the opposite side) till it stops.**
2. **Slide the lever (A) further by bending the tab at the right side of the lever A in the right direction. (The right groove opens and the boss becomes seen.)**
3. **Open the lever (B) to left. (The 2 grooves at the left side open.)**

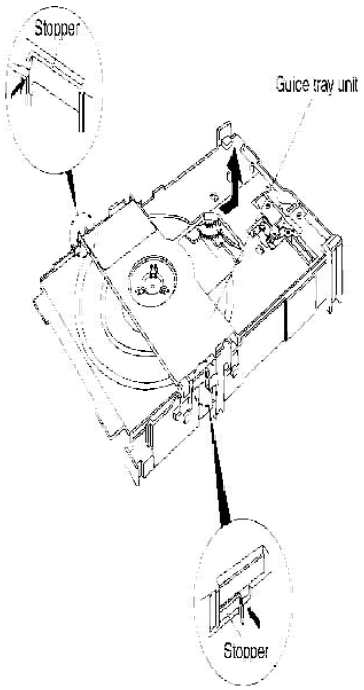


4. Remove the traverse unit



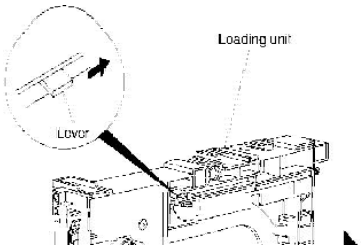
7.3. Tray

1. Slide the guide tray unit while pressing the stopper in the arrow direction, and remove the guide tray unit.

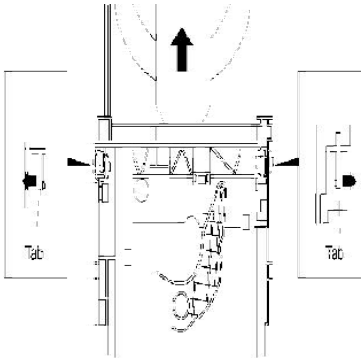


2. Raise the loading unit.

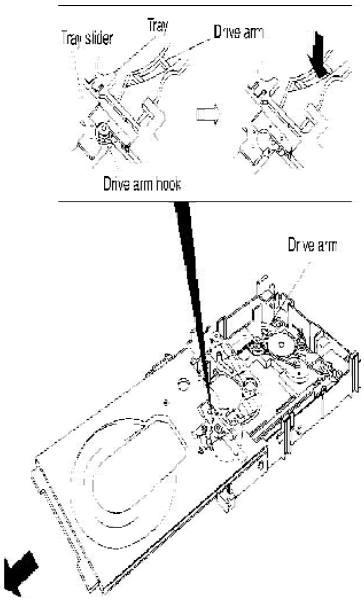
3. Slide the lever in the arrow direction till it stops and pull the tray out.



4. Spread the tabs at the both sides and pull the tray out. (The tray slides a little forward and stops.)



5. Remove the drive arm concave phase from the tray slider and tray.



<Assembling the tray unit>

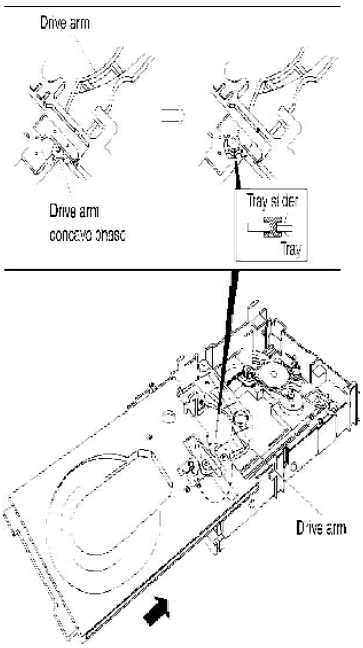
1. Insert a part of the tray into the unit sliding over the groove on the mechanical chassis unit.

2. Insert the tray to the point before the tab of the mechanical chassis unit.

3. Hook the drive arm concave phase over the tray and the tray slider.

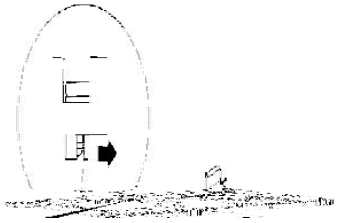
4. Press in the tray.

5. Make sure that the tray and the drive arm move smoothly.



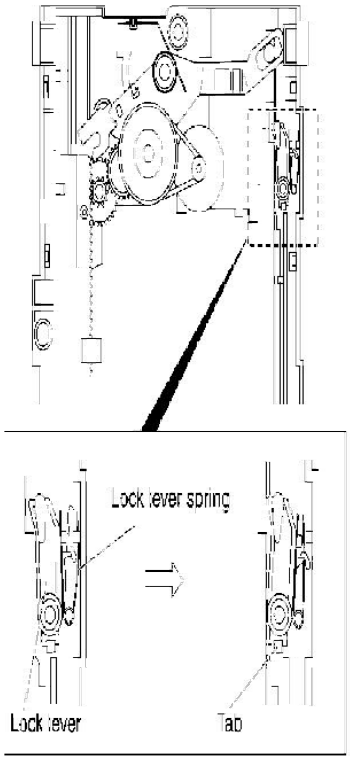
7.4. Loading section

1. Spread the tabs at the both sides and push out the drive arm shaft.



2. Hook the lock lever spring on the lock lever projection part temporarily.

3. Unlock the tab and remove the lock lever.



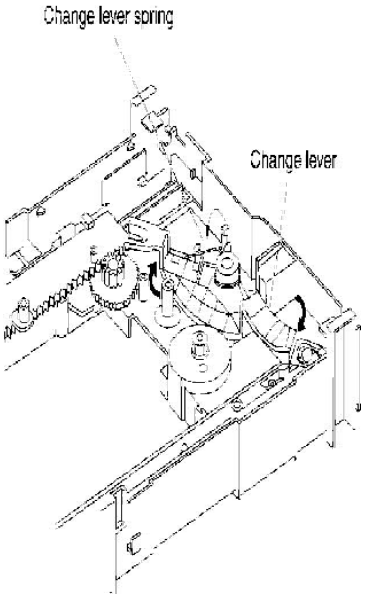
4. Remove the belt.

5. Unlock the tab and remove the pulley.

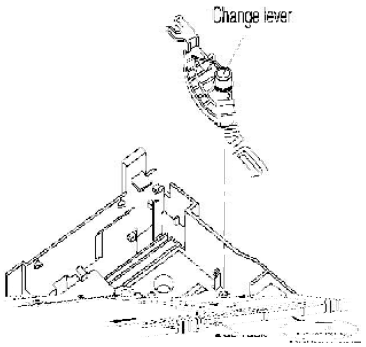
6. Remove the relay gear.

7. Turn the change lever in the arrow direction till it stops.

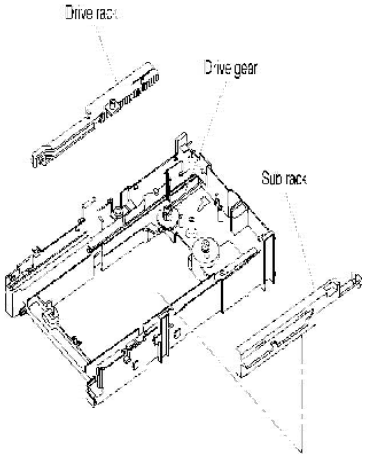
8. Hook the change lever spring on the change lever project part temporarily.



9. Pull the lever (B) in the bottom side to your side and remove the change lever.

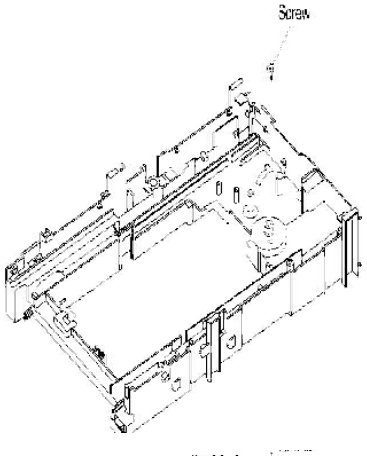


10. Remove the drive rack, the sub rack and the drive gear.



7.5. Loading motor P.C.B.

1. Unscrew the screws



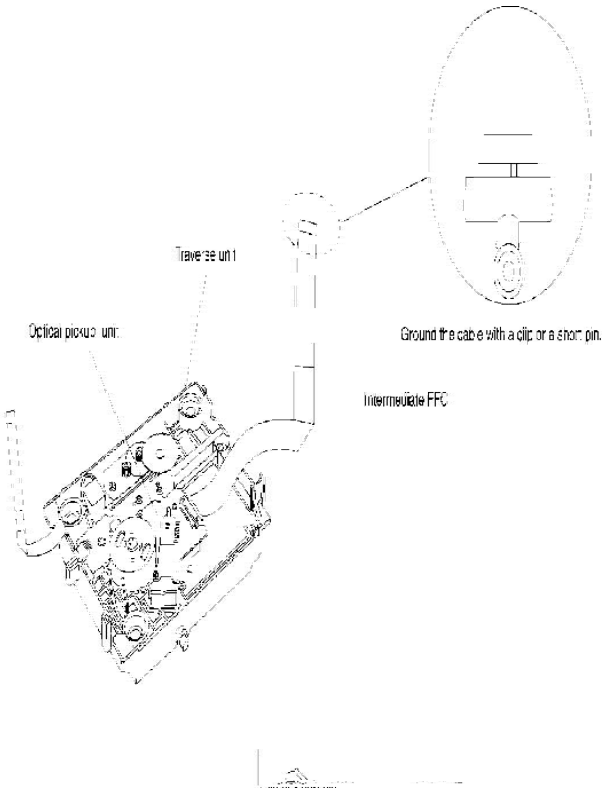
7.6. TRV Unit

7.6.1. Cautions to Be Taken in Handling the TRV Unit

The laser diode in the TRV unit may be damaged due to electrostatic discharge generating from clothes or human body. Use due caution to electrostatic discharge damage when servicing the laser diode.

1. Do not give a considerable shock to the TRV unit as it has an extremely high-precise structure.

2. To prevent the laser diode from the electrostatic discharge damage, the Intermediate FFC of the TRV unit removed from the PCB should be short-circuited with a short pin or a clip.
3. The Intermediate FFC may be cut off if an excessive force is applied to it. Use caution when handling the Intermediate FFC.



7.6.2. Procedure for Disassembling the TRV Unit

Notice

1. This section aims to focus on the disassembling methods of some parts in the case that no damage is occurred to optical pickup units.
2. When the optical pickup unit is defective, the overall traverse unit needs replacement.
3. Please note that appropriate actions needs to be taken to prevent static damage.

Caution

Insert the short pin into the FFC of the optical pickup unit. (See “Caution to be taken in handling the TRV Unit”)

1. **Before changing 22P FFC, please weld the short-circuit solder. (refer to Fig. A)**

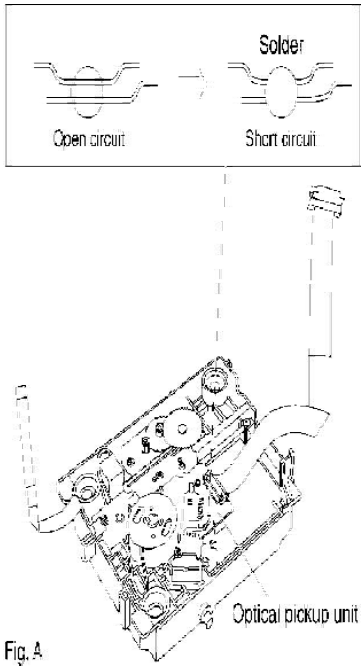
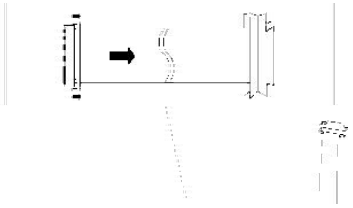


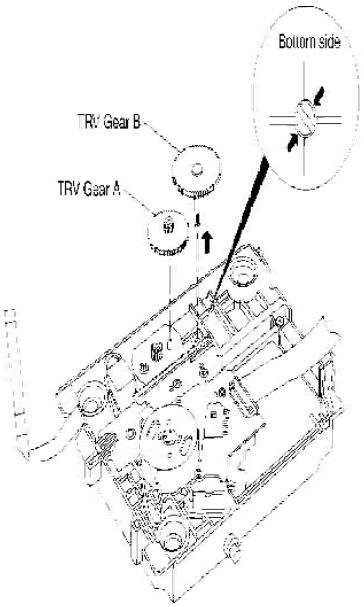
Fig. A

2. **Remove the connecter, take out the 22P FFC.**



After changing the 22P FFC, please remove the solder. (refer to Fig. B)

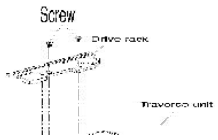
3. **Push the tabs on the back and remove the TRV Gear B and A.**



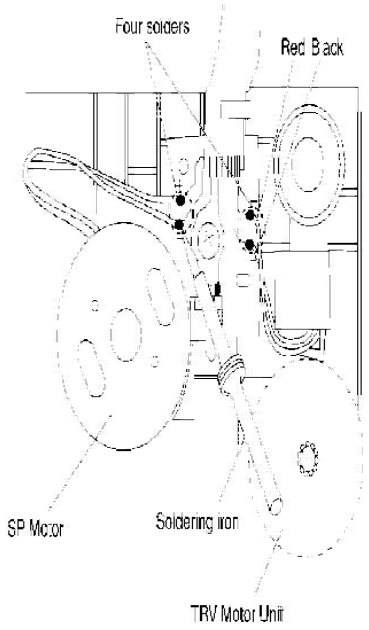
4. Unscrew the screws.
5. Remove the drive rack.

Caution

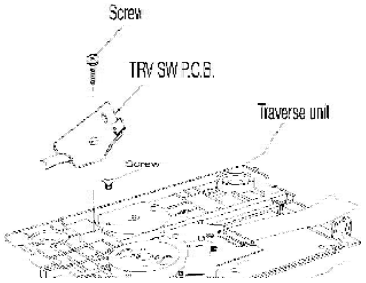
Do not dissemble drive rack fixing screws repeatly, otherwise the screws may hard to tighten and affect the accuracy of optical pickups consequently.



6. Remove the solders of the SP motor and the TRV motor.



7. Unscrew the screws, then remove the TRV Motor and TRV SW P.C.B. Unit.



<Assembling the TRV unit>

1. After replacing the TRV Unit and connecting the 22P FFC, remove the solder on the optical pickup unit.

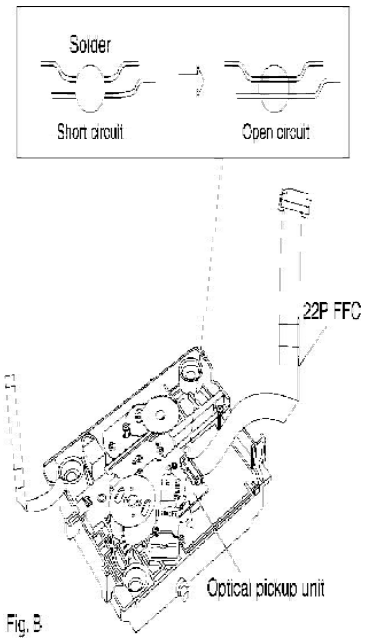


Fig. 3

Caution

1. **Do not give a considerable shock to the optical pickup unit as it has an extremely high-precise structure.**
2. **Do not touch the lens in the optical pickup unit.**

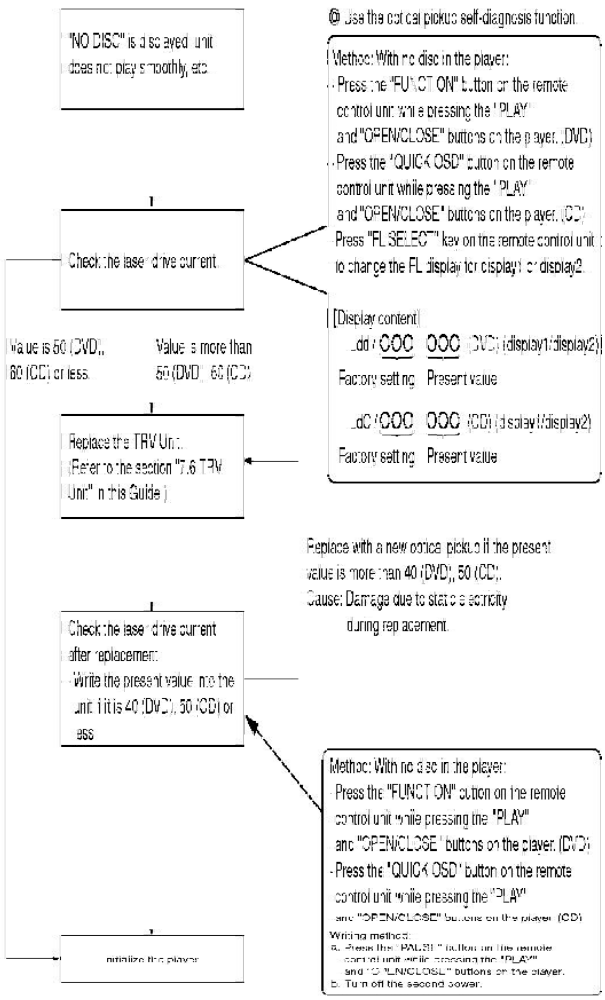
2. **The FFC is fixed as shown below.**

8. SELF-DIAGNOSIS FUNCTION AND SERVICE MODES

8.1. Optical Pickup Breakdown Diagnosis

The optical pickup self-diagnosis function has been included in this unit. When repairing, use the following procedure for effective Self-diagnosis . Be sure to use the self-diagnosis function before replacing the TRV Unit when "NO DISC" is displayed. As a guideline, you should replace the TRV Unit when the value of the laser drive current is more than 55.

Note:
Press the power button to turn on the power, and check the value within three minutes before the unit warms up. (Otherwise, the result will be incorrect.)


"NO DISC" is displayed, unit does not play smoothly, etc.
Check the laser drive current.
Value is 50 (DVD), 60 (CD) or less.
Value is more than 50 (DVD), 60 (CD).
Replace the TRV Unit. (Refer to the section "7.6 TRV Unit" in this Guide.)
Check the laser drive current after replacement. Write the present value into the unit if it is 40 (DVD), 50 (CD) or less.
Initialize the player.
Use the optical pickup self-diagnosis function.
Method: With no disc in the player:
- Press the "FUNCTION" button on the remote control unit while pressing the "PLAY" and "OPEN/CLOSE" buttons on the player. (DVD)
- Press the "QUICK OSD" button on the remote control unit while pressing the "PLAY" and "OPEN/CLOSE" buttons on the player. (CD)
Press "FL SELECT" key on the remote control unit to change the FL display for display1 or display2.
[Display content]
Addr COC OOC (DVD) (display1/display2)
Factory setting: Present value
Addr COC OOC (CD) (display1/display2)
Factory setting: Present value
Replace with a new optical pickup if the present value is more than 40 (DVD), 50 (CD).
Cause: Damage due to static electricity during replacement.
Method: With no disc in the player:
Press the "FUNCTION" button on the remote control unit while pressing the "PLAY" and "OPEN/CLOSE" buttons on the player. (DVD)
- Press the "QUICK OSD" button on the remote control unit while pressing the "PLAY" and "OPEN/CLOSE" buttons on the player. (CD)
Writing method:
a. Press the "FL SELECT" button on the remote control unit while pressing the "PLAY" and "OPEN/CLOSE" buttons on the player.
b. Turn off the second power.

8.2. Service Mode Table 1

The service modes can be activated by pressing various button combination on the player and remote control unit. please carry out your operation based on the remote control supplied with Panasonic DVD player of previous models.

Player buttons	Remote control unit buttons	Application	Note
PLAY + OPEN/CLOSE	0	Displaying the UHF display F_ _ _	Refer to sectio 8.3. Self-Diagn Function (UHF Display).
	5	Jitter check, tilt adjustment *Display shows J_xxx/yyy_zz "yyy" and "zz" shown to the right have nothing to do with the jitter value. "yyy" is the error counter, while "zz" isthe focus drive value.	
	6	Checking the region numbers and broadcast system	
	7	Checking the program version	Check the IC86 FLASH ROM program.
	9	Lighting Confirmation Function of Display Tube	
	FUNCTION	Checking the laser drive current	Refer to sectio 8.1. Optical Pic Replacement Procedure.
	PAUSE	Writing the laser drive current value after replacing the optical pickup (do not use for anything other than optical pickup replacement)	
	POWER	Initializing the DVD player (restoring factory preset settings)	Refer to sectio 8.5. Initializing DVD player.

8.3. DVD Self Diagnostic Function-Error Code

Error Code	Error Content	Additional error explanation	Defect 1	Defect 2	Defect 3	Defec
U11	Focus error	Focus coil, FE singal error	TRV Unit	DV4.1 (IC8001)		
H01	Tray loading error	LD motor error, DV4.1 (IC8001) error	LD Motor	IC8251		
H02	Spindle servo error	(Spindle servo, DV4.1 (IC8001) SP motor, CLV servo error)	LD Motor	DV4.1 (IC8001)		
H03	Traverse servo error	Traverse servo, DV4.1 (IC8001) , TRV motor error	TRV Motor	DV4.1 (IC8001)		
H04	Tracking servo error	Tracking coil, DV4.1 (IC8001) error	TRV Unit	DV4.1 (IC8001)		
H05	Seek error	TRV Motor, IC8251 error	TRV Motor	IC8251		
H07	Spindle motor drive error	SP motor current error, IC8251 error	TRV Unit	IC8251		
F893	FROM falsification	Firmware soft error, DV4.1 (IC8001) error	FROM (IC8651) (*1)	DV4.1 (IC8001)		
F895	Language area abnormality	Firm version agreement check for factory preset setting failure prevention	FROM (IC8651) (*1)			
F897	initialize is not completed	Initialize completion check for factory preset setting failure prevention				

Note:

An error code will be canceled if a power supply is turned OFF.

***1: When FROM or Module P.C.B is replaced ,be sure to write the present value into the player as the initial setting of laser drive current . (Refer to section 8.5 initial setting of laser drive current .)**

Writing method :

a. Press the "PAUSE" button on the remote control unit while pressing the "PLAY" and "OPEN/CLOSE" buttons on the player.

b. Turn off the second power.

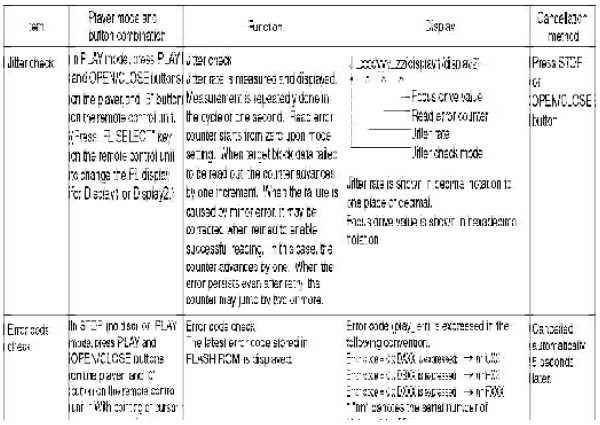
8.4. Last Error Code saved during NO PLAY

Error code	Error Content	Condition	Available butto
F0C0	DVD : Cannot playback because it is not DVD Video	The DVD-ROM/-R/-RW/+R/+RW is not MP3/JPEG/DVD-Video format	POWER, OPEN/ CLOSE
F0C1	DVD : Prohibited by the restricted region code	The region code of DVD is not right .	POWER, OPEN/ CLOSE
F0C2	DVD : PAL restricted playback	When put the DVD-PAL disc into the NTSC only player	POWER, OPEN/ CLOSE
F0C3	DVD : Parental lock setting prohibits the playback of the entire title	“LOCK ALL” of the DISC-RATINGS has been chose.	POWER, OPEN/ CLOSE

8.5. Service mode table 2

Pressing various button combinations on the player and remote control unit can activate the service modes.

Please carry out your operation based on the remote control supplied with Panasonic DVD player of previous models.


tem
Player mode and button combination
Function
Displar
Cancellation method
Jitter check
In PLAY mode, press PLAY and OPEN/CLOSE buttons on the player, and "5" button on the remote control unit. Press "FL SELECT" key on the remote control unit to change the FL display to Display1, or Display2.
Jitter check
Jitter rate is measured and displayed. Measurement is repeated every time in the cycle of one second. Read error counter starts from zero upon mode setting. When target block data failed to be read out, the counter advances by one increment. When the failure is caused by minor error, it may be corrected when retrial is enable successful reading. In this case, the counter advances by one. When the error persists even after retry, the counter may jump by two or more.
Focus drive value
Read error counter
Jitter rate
Jitter check mode
Jitter rate is shown in decimal notation to one place of decimal.
Focus drive value is shown in hexadecimal notation.
Press STOP or OPEN/CLOSE button
Error code check
In STOP (no disc) or PLAY mode, press PLAY and OPEN/CLOSE buttons on the player, and "4" button on the remote control unit. With pairing of buser
Error code check
The latest error code stored in FLASH ROM is displayed.
Error code (play_err) is expressed in the following convention.
Cancelled (automatically 15 seconds later.

Item	Player mode and button combination	Function	Display	Cancellation method
Version display	In STOP (no disc) or PLAY mode, press PLAY and OPEN/CLOSE buttons on the player, and "7" button on the remote control unit. Press "FL SELECT" key on the remote control unit to change the FL display on Display1 or Display2.	Version display	※When check this item, connect this player to monitor TV and check each switching the display shown on the monitor.	Cancelled automatically 5 seconds later.
Lighting of display tube	In any mode, press PLAY and OPEN/CLOSE buttons on the player, and "8" button on the remote control unit.	Lighting of display tube		Repeat the same operation
Dealer's lock	In PLAY mode, press PLAY and OPEN/CLOSE buttons on the player, and QUICK REPLAY button on the remote control unit.	Dealer's lock The dealer's lock is set to ON or OFF. When dealer's lock is ON, it prohibits switching off of the secondary power and tray opening. When the lock is switched, its ON/OFF status is stored in FLASH ROM.	"LOCK" sign appears when dealer's lock is switched on or other secondary power key or tray opening key is pressed while the lock is on. "UNLOCK" sign appears when dealer's lock is switched off.	Repeat the same operation
Initialization	In STOP (no disc) mode, press PLAY, POWER and OPEN/CLOSE buttons on the player for 3 seconds or longer.	Initialization User settings are cancelled and player is initialized to factory setting.	"-"	
All reset	When initialization by the user is being performed, "INIT" is displayed on the FL, press PLAY and OPEN/CLOSE buttons on the player.	Initialization User settings are cancelled and player is initialized to factory setting. All of the error codes saved in the EEPROM are cancelled.	RESET	
Region display	In STOP (no disc) or PLAY mode, press PLAY and OPEN/CLOSE buttons on the player, and "9" button on the remote control unit.	Region display	Panel controller version 4) NTSC/4) PAL60 4) NTSC/4) PAL 4) NTSC/4) PAL Region No.	Cancelled automatically 5 seconds later.

Item	Player mode and button combination	Function	Display	Cancellation method
Timer check	In STOP (no disc)	Timer check	1) 12h/6678h(Display1/2) 2) 12h/6678h(Display1/2)	Cancelled

8.6. Sales demonstration lock function

This function prevents discs from being lost when the unit is used for sales demonstrations by disabling the disc eject function. "LOC" is displayed on the unit, and ordinary operation is disabled.

8.6.1. Setting

The sales demonstration lock is set by simultaneously pressing PLAY and OPEN/CLOSE buttons on the player and QUICK REPLAY button on the remote control unit for 1 second or longer.

8.6.2. Cancellation

The lock can be cancelled by the same procedure as used in setting. ("UNLOC" is displayed on cancellation. Disconnecting the power cable from power outlet does not cancel the lock.)

8.7. Handling After Completing Repairs

Use the following procedure after completing repairs.

8.7.1. Method

Confirm that the power is turned on:

1. Press the "OPEN/CLOSE" button to close the tray.

2. Press the "POWER" button to turn off the power.

3. Disconnect the power plug from the outlet.

8.7.2. Precautions

Do not disconnect the power plug from the outlet with the tray still open, then close the tray manually.

9. SERVICE PRECAUTIONS

9.1. Recovery after the DVD player is repaired.

- The DVD player requires no recovery process after it is repaired; therefore, there is no necessity of using recovery disc.

- Models that require no recovery process are listed as below(As of Feb.2006):

***DVD-K32**

***DVD-S32**

***DVD-S1**

9.2. Firmware version-up of the DVD player

- The firmware of the DVD player may be renewed to improve the quality including operationability and playability to the substandard discs. Make sure to observe the following rules when performing version-up.

Note:

When FROM or module P.C.B. is replaced, carry out the process of firmware version-up.

- The latest firmware required for version-up can be downloaded from TSN -WEB [Support Information from NWBG-PAVC].

When it is finished, use burning software to make up a version-up disc

in the form of CD-R.

Note:
Do not modify the file name of downloaded data at random; keep the original file names for disc burning.
Make sure to select normal format instead of image format.
If you may not be able to complete a downloding from the TSN-WEB page, please obtain the file through your local Panasonic Service Organization.

- Updating firmware

1. **Load the version-up disc that is supplied to the player and run it.**
2. **Firmware version of the player is automatically checked. Appropriate message appears whenever necessary.**
3. **Using remote controller's " ENTER" button or player's "OPEN/CLOSE" button, select whether version updating is to be done or not according to the message appearing on the screen.**
4. **a. If " ENTER" is pushed, version updating is performed.**
   b. If " OPEN/CLOSE" is pushed, version updating is cancelled.
5. **a. When updating is finished, the player will restart. Remove the disc after the tray has opened automatically.**
   b. Remove the disc.
6. **a. Write the present value into the player as the initial setting of laser drive current. (Refer to section 8.5 initial setting of laser drive current .)**
7. **Turn off the power.**

Note:
If the AC power supply is shut out during version-up due to a power failure, the version-up is improperly carried out.
In such a case, replace the FROM and carry out the version-up again.

10. ADJUSTMENT PROCEDURES

10.1. Service Tools and Equipment

Application	Name	Number
Inspection	Extension cable (module P.C.B. to mother P.C.B.)	VUC8026
	Extension cable (module P.C.B. to mother P.C.B.)	RFKZ0106
Others	Hanarl	VFK1784
	Grease	RFKXPG641
	Drysurf	RFKXGUD24
Confirmation	CD test disc	PVCD-K06 or any other commercially available disc
	VCD test disc	PVCD-K06 or any other commercially available disc
	DVD test disc	DVDT-S15 or DVDT-S01

10.2. Important points in electrical adjustment

- Follow the adjustment procedures described in this Manual.

10.3. Storing and Handling Test Discs

- Surface precision is vital for DVD test discs. Be sure to store and handle them carefully.

1. Do not place discs directly onto the workbench, etc., after use.
2. Handle discs carefully in order to maintain their flatness. Place them into their case after use and store them vertically. Store discs in a cool place where they are not exposed to direct sunlight or air from air conditioners.
3. Accurate adjustment will not be possible if the disc is warped when placed on a surface made of glass, etc. If this happens, use a new test disc to make optical adjustments.
4. If adjustment is done using a warped disc, the adjustment will be incorrect and some discs will not be playable.

11. ABBREVIATIONS

INITIAL/LOGO		ABBREVIATIONS
A	A0~UP	ADDRESS
	ACLK	AUDIO CLOCK
	AD0~UP	ADDRESS BUS
	ADATA	AUDIO PES PACKET DATA
	ALE	ADDRESS LATCH ENABLE
	AMUTE	AUDIO MUTE
	AREQ	AUDIO PES PACKET REQUEST
	ARF	AUDIO RF
	ASI	SERVO AMP INVERTED INPUT
	ASO	SERVO AMPOUTPUT
	ASYNC	AUDIO WORD DISTINCTION SYNC
B	BCK	BIT CLOCK (PCM)
	BCKIN	BIT CLOCK INPUT
	BDO	BLACK DROP OUT
	BLKCK	SUB CODE BLOCK CLOCK
	BOTTOM	CAP. FOR BOTTOM HOLD
	BYP	BYPATH
	BYTCK	BYTE CLOCK
C	CAV	CONSTANT ANGULAR VELOCITY
	CBDO	CAP. BLACK DROP OUT
	CD	COMPACT DISC
	CDSCK	CD SERIAL DATA CLOCK
	CDSRDATA	CD SERIAL DATA
	CDRF	CD RF (EFM) SIGNAL
	CDV	COMPACT DISC-VIDEO
	CHNDATA	CHANNEL DATA
	CKSL	SYSTEM CLOCKSELECT
	CLV	CONSTANT LINEAR VELOCITY
	COFTR	CAP. OFF TRACK
	CPA	CPU ADDRESS
	CPCS	CPU CHIP SELECT
	CPDT	CPU DATA
	CPUADR	CPU ADDRESS LATCH
	CPUADT	CPU ADDRESS DATA BUS
	CPUIRQ	CPU INTERRUPT REQUEST
	CPRD	CPU READ ENABLE
	CPWR	CPU WRITE ENABLE
	CS	CHIPSELECT
	CSYNCIN	COMPOSITE SYNC IN
	CSYNCOUT	COMPOSITE SYNC OUT

INITIAL/LOGO		ABBREVIATIONS
D	DACCK	D/A CONVERTER CLOCK
	DEEMP	DEEMPHASIS BIT ON/OFF
	DEMPH	DEEMPHASIS SWITCHING
	DIG0~UP	FL DIGIT OUTPUT
	DIN	DATA INPUT
	DMSRCK	DM SERIAL DATA READ CLOCK
	DMUTE	DIGITAL MUTE CONTROL
	DO	DROP OUT
	DOUT0~UP	DATAOUTPUT
	DRF	DATA SLICE RF (BIAS)
	DRPOUT	DROP OUT SIGNAL
	DREQ	DATA REQUEST
	DRESP	DATA RESPONSE
	DSC	DIGITAL SERVO CONTROLLER
	DSLF	DATA SLICE LOOP FILTER
	DVD	DIGITAL VIDEO DISC

INITIAL/LOGO		ABBREVIATIONS
E	EC	ERROR TORQUE CONTROL
	ECR	ERROR TORQUE CONTROL REFERENCE
	ENCSEL	ENCODER SELECT
	ETMCLK	EXTERNAL M CLOCK (81MHz/ 40.5MHz)
	ETSCLK	EXTERNAL S CLOCK (54MHz)
F	FBAL	FOCUS BALANCE
	FCLK	FRAME CLOCK
	FE	FOCUS ERROR
	FFI	FOCUS ERROR AMP INVERTED INPUT
	FEO	
	FG	FOCUS ERROR AMP OUTPUT
	FSC	FREQUENCY GENERATOR
	FSCK	FREQUENCY SUB CARRIER
		FS (384 OVER SAMPLING) CLOCK
G	GND	COMMON GROUNDING (EARTH)
H	HA0~UP	HOST ADDRESS
	HD0~UP	HOST DATA
	HINT	HOST INTERRUPT
	HRXW	HOST READ/WRITE
I	IECOUT	IEC958 FORMAT DATA OUTPUT
	IPFRAG	
	IREF	INTERPOLATION FLAG
	ISEL	I (CURRENT) REFERENCE
		INTERFACE MODE SELECT
L	LDON	LASER DIODE CONTROL
	LPC	LASER POWER CONTROL
	LRCK	L CH/R CH DISTINCTION CLOCK
M	MA0~UP	MEMORY ADDRESS
	MCK	MEMORY CLOCK
	MCKI	MEMORY CLOCK INPUT
	MCLK	MEMORY SERIAL COMMAND CLOCK
	MDATA	
	MDQ0~UP	MEMORY SERIAL COMMAND DATA
	MDQM	
	MLD	MEMORY DATA INPUT/OUTPUT
	MPEG	MEMORY DATA I/O MASK
		MEMORYSERIAL COMMAND LOAD
		MOVING PICTURE EXPERTS GROUP

INITIAL/LOGO		ABBREVIATIONS
O	ODC	OPTICAL DISC CONTROLLER
	OFTR	OFF TRACKING
	OSCI	OSCILLATOR INPUT
	OSCO	OSCILLATOR OUTPUT
	OSD	ON SCREEN DISPLAY
P	P1~UP	PORT
	PCD	CD TRACKING PHASE
	PCK	DIFFERENCE
	PDVD	PLL CLOCK
	PEAK	DVD TRACKING PHASE
	PLLCLK /	DIFFERENCE
	PLLOK	CAP. FOR PEAK HOLD
	PWMCTL	CHANNEL PLL CLOCK
	PWMDA	PLL LOCK
	PWMOA, B	PWM OUTPUT CONTROL
		PULSE WAVE MOTOR DRIVEA
		PULSE WAVE MOTOR OUT A, B

INITIAL/LOGO		ABBREVIATIONS
R	RE	READ ENABLE
	RFENV	RF ENVELOPE
	RFO	RF PHASE DIFFERENCE
	RS	OUTPUT
	RSEL	(CD-ROM) REGISTER SELECT
	RST	RF POLARITY SELECT
	RSV	RESET
		RESERVE
S	SBI0, 1	SERIAL DATA INPUT
	SBO0	SERIAL DATA OUTPUT
	SBT0, 1	SERIAL CLOCK
	SCK	SERIAL DATA CLOCK
	SCKR	AUDIO SERIAL CLOCK
	SCL	RECEIVER
	SCLK	SERIAL CLOCK
	SDA	SERIAL CLOCK
	SEG0~UP	SERIAL DATA
	SELCLK	FL SEGMENT OUTPUT
	SEN	SELECTCLOCK
	SIN1, 2	SERIAL PORT ENABLE
	SOUT1, 2	SERIAL DATA IN
	SPDI	SERIAL DATA OUT
	SPDO	SERIAL PORT DATA INPUT
	SPEN	SERIAL PORT DATA OUTPUT
	SPRCLK	SERIAL PORT R/W ENABLE
	SPWCLK	SERIAL PORT READ CLOCK
	SQCK	SERIAL PORT WRITE CLOCK
	SQCX	SUB CODE Q CLOCK
	SRDATA	SUBCODE Q DATA READ
	SRMADR	CLOCK
	SRMDT0~7	SERIAL DATA
		SRAM ADDRESS BUS
	SS	SRAM DATA BUS 0~7
	STAT	START/STOP
	STCLK	STATUS
	STD0~UP	STREAM DATA CLOCK
	STENABLE	STREAM DATA
		STREAM DATA INPUT ENABLE
	STSEL	STREAM DATA POLARITY
	STVALID	SELECT
	SUBC	STREAM DATAVALIDITY
	SBCK	SUB CODE SERIAL
	SUBQ	SUB CODE CLOCK
	SYSCLK	SUB CODE Q DATA
		SYSTEM CLOCK

INITIAL/LOGO		ABBREVIATIONS
T	TE	TRACKING ERROR
	TIBAL	BALANCE CONTROL
	TID	BALANCE OUTPUT 1
	TIN	BALANCE INPUT
	TIP	BALANCE INPUT
	TIS	BALANCE OUTPUT 2
	TPSN	OP AMP INPUT
	TPSO	OP AMP OUTPUT
	TPSP	OP AMP INVERTED INPUT
	TRCRS	TRACK CROSSSIGNAL
	TRON	TRACKING ON
	TRSON	TRAVERSE SERVO ON

INITIAL/LOGO		ABBREVIATIONS
V	VBLANK	V BLANKING
	VCC	COLLECTOR POWER SUPPLY VOLTAGE
	VCDCONT	VIDEO CD CONTROL (TRACKING
	VDD	BALANCE)
	VFB	DRAIN POWER SUPPLY VOLTAGE
	VREF	VIDEO FEED BACK VOLTAGE REFERENCE SOURCE POWER SUPPLYVOLTAGE
	VSS	
W	WAIT	BUS CYCLE WAIT
	WDCK	WORD CLOCK
	WEH	WRITE ENABLE HIGH
	WSR	WORD SELECT RECEIVER
X	X	X' TAL
	XALE	X ADDRESS LATCH ENABLE
	XAREQ	X AUDIO DATA REQUEST
	XCDROM	X CD ROM CHIP SELECT
	XCS	X CHIP SELECT
	XCSYNC	X COMPOSITE SYNC
	XDS	X DATA STROBE
	XHSYNCO	X HORIZONTAL SYNC OUTPUT
	XHINT	XH INTERRUPTREQUEST
	XI	X' TAL OSCILLATOR INPUT
	XINT	X INTERRUPT
	XMW	X MEMORY WRITE ENABLE
	XO	X' TAL OSCILLATOR OUTPUT
	XRE	X READ ENABLE
	XSRMCE	X SRAM CHIP ENABLE
	XSRMOE	X SRAM OUTPUT ENABLE
	XSRMWE	X SRAM WRITE ENABLE
	XVCS	X V-DEC CHIPSELECT
	XVDS	X V-DEC CONTROL BUS
	XVSYNCO	STROBE X VERTICAL SYNC OUTPUT

12. VOLTAGE CHART

Note:

- Circuit voltage and waveform described herein shall be regarded as reference information when probing defect point, because it may differ from an actual measuring value due to difference of Measuring instrument and its measuringconditionand product itself.

12.1. MOTHER P.C.B.

12.2. MODULE P.C.B.

13. BLOCK DIAGRAM

Note:
Circuit voltage and waveform described herein shall be regarded as reference information when probing defect point, because it may differ from an actual measuring value due to difference of Measuring instrument and its measuringcondition and product itself.

13.1. OVERALL BLOCK DIAGRAM

13.2. POWER SUPPLY BLOCK DIAGRAM

13.3. SERVO BLOCK DIAGRAM

13.4. VIDEO BLOCK DIAGRAM (DVD-S32EB)

13.5. VIDEO BLOCK DIAGRAM (DVD-S32GN)

13.6. VIDEO BLOCK DIAGRAM (DVD-S32PX)

13.7. AUDIO BLOCK DIAGRAM

14. INTERCONNECTION SCHEMATIC DIAGRAM & SCHEMATIC DIAGRAM NOTES

14.1. INTERCONNECTION SCHEMATIC DIAGRAM

14.2. SCHEMATIC DIAGRAM NOTES

This schematic diagram may be modified at any time with the development of new technology.

Important safety notice:
Components identified by mark have special characteristics important for safety. Furthermore, special parts which have purpose of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacture's specified parts shownin theparts list.

Important safety notice:
There are special components used in this equipment which are important for safety.
These parts are marked by in the schematic diagrams. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire, or other hazards. Do not modify the original designwithout permission of manufacturer.

Caution!

IC and LSI are sensitive to static electricity.

Secondary trouble can be prevented by taking care during repair.
Cover the parts boxes made of plastics with aluminum foil.
Ground the soldering iron.
Put a conductive mat on the work table.
Do not touch the legs of IC or LSI with the fingers directly.

15. SCHEMATIC DIAGRAM

15.1. POWER SUPPLY SECTION (MOTHER P.C.B. (1 / 2)) SCHEMATIC DIAGRAM

15.2. FRONT & AV OUT SECTION (MOTHER P.C.B. (2 / 2)) SCHEMATIC DIAGRAM (DVD-S32EB)

15.3. FRONT & AV OUT SECTION (MOTHER P.C.B. (2 / 2)) SCHEMATIC DIAGRAM (DVD-S32GN/PX)

15.4. MODULE SCHEMATIC DIAGRAM (DVD-S32PX)

15.5. MODULE SCHEMATIC DIAGRAM (DVD-S32EB/GN)

16. PRINT CIRCUIT BOARD

16.1. MOTHER P.C.B. (DVD-S32EB)

16.2. MOTHER P.C.B. (DVD-S32GN/PX)

16.3. MOTHER P.C.B. ADDRESS INFORMATION

16.4. MODULE P.C.B. (1/2) (DVD-S32EB/GN)

16.5. MODULE P.C.B. (2/2) (DVD-S32EB/GN)

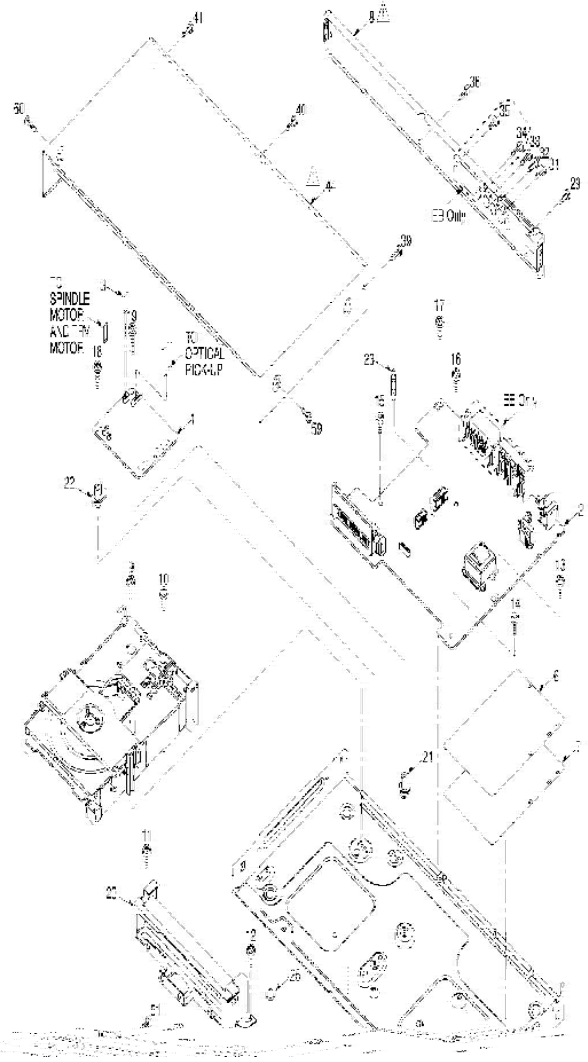
16.6. MODULE P.C.B. (1/2) (DVD-S32PX)

16.7. MODULE P.C.B. (2/2) (DVD-S32PX)

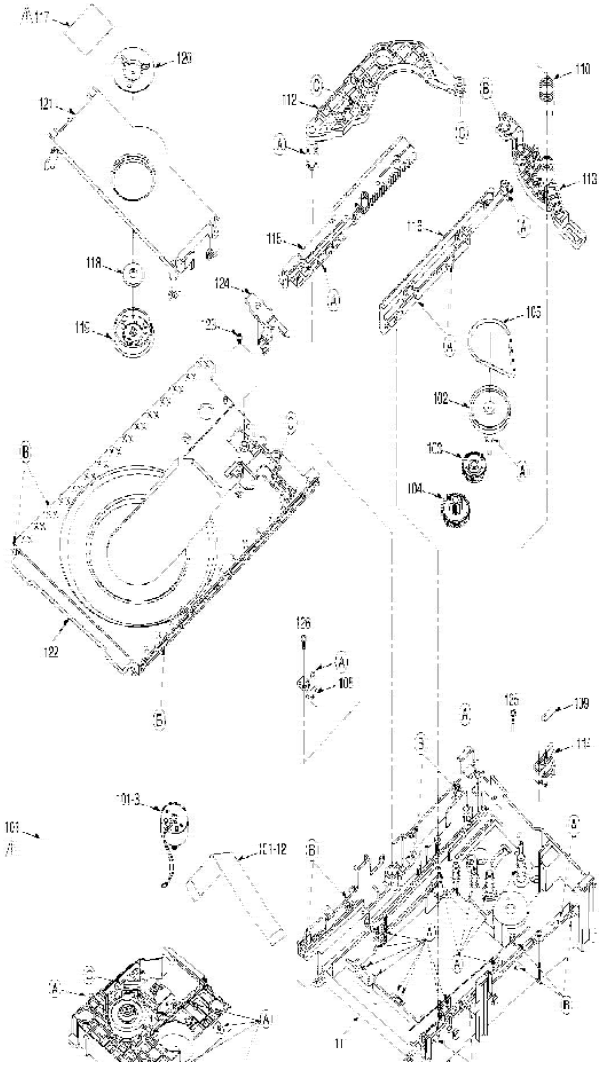
16.8. MODULE P.C.B. ADDRESS INFORMATION

17. EXPLODED VIEWS

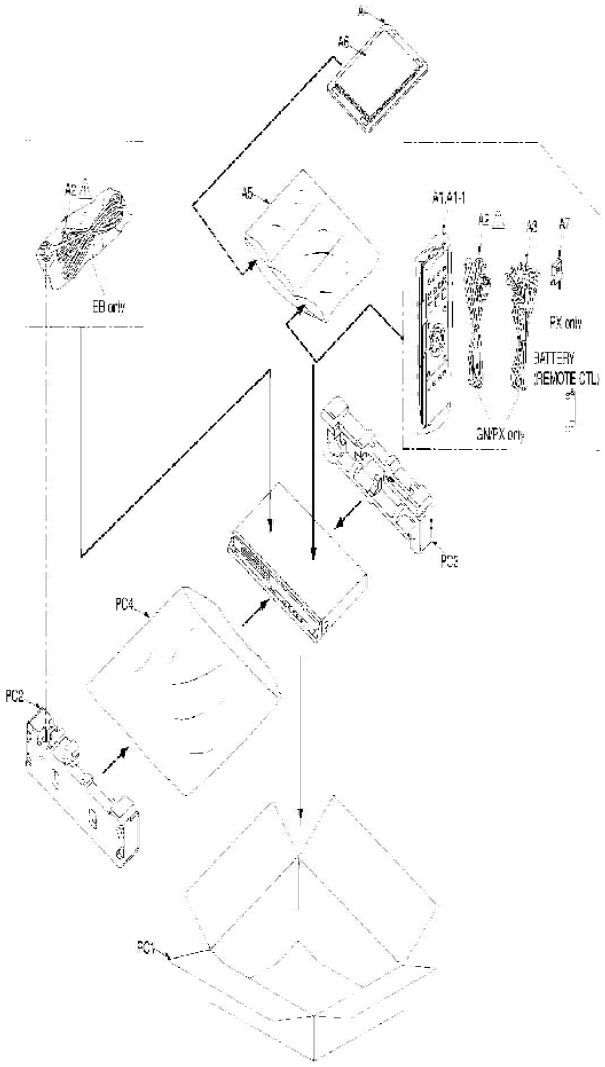
17.1. CASING PARTS & MECHANISM SECTION EXPLODED VIEW



17.2. MECHANISM SECTION EXPLODED VIEW



17.3. PACKING & ACCESSORIES SECTION EXPLODED VIEW



18. REPLACEMENT PARTS LIST

Notes:

***Important safety notice:**

Components identified by mark have special characteristics important for safety.
Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.
When replacing any of components, be sure to use only manufacture's specified parts shown in the parts list.

***Warning: This product uses a laser diode. Refer to caution statements.**

***Capacity values are in microfarads (F) unless specified otherwise, P=Pico-farads (pF), F=Farads (F).**
***Resistance values are in ohms, unless specified otherwise, 1K=1,000 (OHM), 1M=1,000k (OHM).**
***The marking (RTL) indicates the retention time is limited for this item. After the discontinuation of this assembly in production, it will no longer be available.**
***"(IA)", marks in Remarks indicate languages of instruction manuals. [(IA): English]**
***All parts except parts mentioned [SPC] in the Remarks column are supplied by PAVCSG.**
***Parts mentioned [SPC] are supplied by PAVC-CSG.**

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
1	VEP79120A	MODULE P.C.B.	1	(RTL) EB
1	VEP79120E	MODULE P.C.B.	1	(RTL) GN
1	VEP79121A	MODULE P.C.B.	1	(RTL) PX
2	VEP76131A	MOTHER P.C.B.	1	(RTL) EB
2	VEP76131B	MOTHER P.C.B.	1	(RTL) GN/PX
3	REZ1710	FFC(7P)	1	
5	RGKC0068	TRAY TOP	1	
6	RGQC0037	INSULATION SHEET	1	
7	RGQC0037	INSULATION SHEET	1	
8	RGRC0022B-C	REAR PANEL	1	EB
8	RGRC0022A-D	REAR PANEL	1	GN
8	RGRC0022A-G	REAR PANEL	1	PX
9	RHD30101-1J	SCREW	1	
10	RHD30101-1J	SCREW	1	
11	RHD30111-3J	SCREW	1	
12	RHD30111-3J	SCREW	1	
13	RHD30111-3J	SCREW	1	
14	RHD30111-3J	SCREW	1	
15	RHD30111-3J	SCREW	1	
16	RHD30111-3J	SCREW	1	
17	RHD30111-3J	SCREW	1	
18	RHDC0023-J	SCREW	1	
19	RHDC0023-J	SCREW	1	
20	RGQC0038	FRONT ANGLE	1	
21	RMNC0016	PCB SUPPORT(A)	1	
22	RMNC0017	PCB SUPPORT(B)	1	
23	RMNC0019	PCB SUPPORT	1	
25	RKA0130-K	FOOT RUBBER	1	
26	RKA0130-K	FOOT RUBBER	1	
27	RKA0130-K	FOOT RUBBER	1	
28	RKA0130-K	FOOT RUBBER	1	
29	VHD0690-1	SCREW	1	
31	VHD0690-1	SCREW	1	
32	VHD0690-1	SCREW	1	
33	VHD0690-1	SCREW	1	
34	VHD0690-1	SCREW	1	EB
35	VHD0690-1	SCREW	1	EB
36	VHD0690-1	SCREW	1	
39	VHD0690-1	SCREW	1	
40	VHD0690-1	SCREW	1	
41	VHD0690-1	SCREW	1	
44	RKMC0012-S	TOP PANEL	1	
45	RFKGDVDS32AS	FRONT PANEL ASS'Y	1	
47	RHD26046	SCREW	1	
48	RHD26046	SCREW	1	
49	RHD26046	SCREW	1	
50	RHD26046	SCREW	1	
51	RHD26046	SCREW	1	
52	RHD26046	SCREW	1	
55	VEP70137A	FRONT P.C.B.	1	(RTL)
55-1	REZ1711	CABLE (4P)	1	
55-2	REZ1712	CABLE (7P)	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
56	VEP70138A	SW P.C.B	1	(RTL)
59	RHD30007-1SJ	SCREW	1	
60	RHD30007-1SJ	SCREW	1	
101	RXQC0006	TRV UNIT ASS'Y	1	
101-1	RDGC0002	TRV GEAR A	1	
101-2	RDGC0003	TRV GEAR B	1	
101-3	RXQ1397	TRAVERSE MOTOR ASS'Y	1	
101-4	XQN17+C28FJ	SCREW	1	
101-5	RHDC0026	SCREW	1	
101-6	RHDC0026	SCREW	1	
101-7	RMMC0004	OPU DRIVE RACK	1	
101-8	VJB70140	TRV-SW PCB	1	
101-9	ESE22MH24	SWITCH	1	
101-10	REZC0055	6P FFC	1	
101-11	VHD1224-1	SCREW	1	
101-12	REZC0056	Pickup FFC(22P)	1	
102	RDG0597	PULLEY GEAR	1	
103	RDG0548	RELAY GEAR	1	
104	RDG0549	DRIVE GEAR	1	
105	RDV0070	BELT	1	
106	REM0129	LOADING MOTOR ASS'Y	1	
107	VEP70114A-1	MOTOR P.C.B.	1	(RTL)
108	RMC0387	SUPPORT SPRING	1	
109	RME0351	LOCK LEVER SPRING	1	
110	RMEC0350	CHANGE LEVER SPRING	1	
111	RMK0616-1	MECHA CHASSIS ASS'Y	1	
112	RML0680	DRIVE ARM	1	
113	RML0628	CHANGE LEVER	1	
114	RML0629	LOCK LEVER	1	
115	RMM0283	DRIVE RACK	1	
116	RMM0284	SUB RACK	1	
117	RQLCA0141	LASER CAUTION LABEL	1	
118	JSMC0048	MAGNET	1	
119	RMR1685-X	CLAMPER	1	
120	RMA1890	MAGNET HOLDER	1	
121	RMR1686-K	CLAMP PLATE	1	
122	RGQ0417-K	TRAY	1	
123	RME0353-1	TRAY SLIDER SPRING	1	
124	RML0631	TRAY SLIDER	1	
125	XQN17+C25FJ	SCREW	1	
126	XTB26+6GFJ	SCREW	1	
127	XTN2+6GFJ	SCREW	1	
A1	N2QAYB000014	REMOTE CONTROL ASS'Y	1	EB/GN
A1	N2QAYB000013	REMOTE CONTROL ASS'Y	1	PX
A1-1	103RRS-176-01E	BATTERY COVER	1	
A2	K2CT3CA00004	AC CORD	1	EB
A2	K2CQ2CA00006	AC CORD	1	PX
A2	K2CJ2DA00008	AC CORD	1	GN
A3	K2KA6BA00004	AV CORD	1	GN/PX
A4	RPHC0096-1	PAD	1	
A5	RPFC0042	POLYETHYLENE BAG(F.B.)	1	
A6	RQT8685-1B	OPERATING INSTRUCTIONS	1	(IA)
A7	K2DR42E00001	POWER PLUG ADAPTOR	1	PX

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C1001	F0CAF104A024	0.1U	1	
C1002	F0CAF104A024	0.1U	1	
C1003	ECKMNA471MBV	470P	1	
C1004	ECKMNA102MEV	1000P	1	
C1011	ECA2WHG100E	450V 10U	1	
C1012	ECA2WHG100E	450V 10U	1	
C1021	F1A3D221A010	2000V 220P	1	
C1031	F1B3A332A008	1000V 0.0033U	1	
C1041	F2A1H1010044	50V 100U	1	
C1051	ECQB1H152JF4	50V 0.0015U	1	
C1061	ECQB1H101KF4	50V 100P	1	
C1071	ECQB1H103JF4	50V 0.01U	1	
C1081	ECQB1H152JF4	50V 0.0015U	1	
C1082	ECQB1H472JF4	50V 0.0047U	1	
C1092	F2A1H100A003	50V 10U	1	
C1101	ECQV1H684JL2	50V 0.68U	1	
C1102	ECQB1H104JF4	50V 0.1U	1	
C1110	F1H1H102A799	50V 1000P	1	
C1111	F2A1A681A539	10V 680U	1	
C1112	F2A1A102A206	10V 1000U	1	
C1115	F1H1C104A111	16V 0.1U	1	
C1116	F2A1A221A206	10V 220U	1	
C1117	F2A0J102A247	6.3V 1000U	1	
C1121	F2A0J681A550	6.3V 680U	1	
C1122	F2A0J222A247	6.3V 2200U	1	
C1141	F2A1E1010067	25V 100U	1	
C1151	F2A1E3310051	25V 330U	1	
C1153	F2A1E331A205	25V 330U	1	
C1154	F2A1C221A236	16V 220U	1	
C1155	ECJ1VB1E104K	25V 0.1U	1	
C1171	F2A1A1010072	10V 100U	1	
C1195	ECJ1VB1A105K	10V 1U	1	
C1196	ECJ1VB1A105K	10V 1U	1	
C3502	F1H1H103A798	50V 0.01U	1	
C3503	ECJ1VB1C105K	16V 1U	1	
C3504	ECJ1VB1C105K	16V 1U	1	
C3505	ECJ1VB1C104K	16V 0.1U	1	
C3506	F1H1H103A798	50V 0.01U	1	
C3507	F2A0J220A245	6.3V 22U	1	
C3508	ECJ1VB0J105K	6.3V 1U	1	
C3509	ECJ1VB0J105K	6.3V 1U	1	
C3510	ECJ1VB0J105K	6.3V 1U	1	
C3511	ECJ1VB0J105K	6.3V 1U	1	
C3512	F2A0J102A247	6.3V 1000U	1	
C3513	F2A0J102A247	6.3V 1000U	1	
C3514	F2A0J102A247	6.3V 1000U	1	
C3516	F2A0J102A247	6.3V 1000U	1	
C3518	F2A0J470A245	6.3V 47U	1	
C3804	F1H1H103A798	50V 0.01U	1	
C3805	F1H1H103A798	50V 0.01U	1	
C3806	F2A0J470A245	6.3V 47U	1	
C3811	F2A0J470A245	6.3V 47U	1	
C3812	ECJ1VB1C104K	16V 0.1U	1	
C3813	F1H1H103A798	50V 0.01U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C3814	ECJ1VB1C105K	16V 1U	1	
C3815	ECJ1VB1C105K	16V 1U	1	
C3816	F2A0J220A245	6.3V 22U	1	
C3817	ECJ1VB1C105K	16V 1U	1	
C3818	ECJ1VB1C105K	16V 1U	1	
C3819	ECJ1VB1C105K	16V 1U	1	
C3851	ECJ1VC1H102J	50V 1000P	1	
C3852	ECJ1VC1H102J	50V 1000P	1	
C3871	F1H1H101A799	50V 100P	1	EB
C3872	F1H1H101A799	50V 100P	1	EB
C4050	F1H1C104A111	16V 0.1U	1	
C4313	F1H1C104A111	16V 0.1U	1	
C4314	F1H1C104A111	16V 0.1U	1	
C4315	F1H1C104A111	16V 0.1U	1	
C4323	F2A1H221A236	50V 220U	1	
C4324	F2A1H221A236	50V 220U	1	
C4336	F1H1H820A799	50V 82P	1	
C4337	F1H1H820A799	50V 82P	1	
C4414	F2A1E470A205	25V 47U	1	
C4415	F2A1E470A205	25V 47U	1	
C4423	ECJ1VC1H102J	50V 1000P	1	
C4427	ECJ1VC1H102J	50V 1000P	1	
C4432	ECJ1VB1C104K	16V 0.1U	1	
C4501	ECJ1VB1H102K	50V 1000P	1	
C4502	ECJ1VB1C104K	16V 0.1U	1	
C4591	F1H1C104A111	16V 0.1U	1	
C4703	ECJ1VB1C104K	16V 0.1U	1	
C4751	F2A1E470A205	25V 47U	1	
C4752	F2A1E470A205	25V 47U	1	
C4781	F2A0J470A599	6.3V 47U	1	
C6001	ECJ1VB1C104K	16V 0.1U	1	
C6002	ECJ1VB1C104K	16V 0.1U	1	
C6003	F2A0J101A245	6.3V 100U	1	
C6005	F2A1H100A236	50V 10U	1	
C6006	F1H1H103A798	50V 0.01U	1	
C6081	F1H1H103A798	50V 0.01U	1	
C6132	ECJ1VB1C104K	16V 0.1U	1	
C8001	F2G0G331A012	4V 330U	1	
C8002	F1G1C104A042	16V 0.1U	1	
C8003	F1G1C104A042	16V 0.1U	1	
C8004	F1G1C104A042	16V 0.1U	1	
C8005	F1G1C104A042	16V 0.1U	1	
C8006	F1G1C104A042	16V 0.1U	1	
C8007	F1G1C104A042	16V 0.1U	1	
C8011	F2G0J101A066	6.3V 100U	1	
C8012	F1G1C104A042	16V 0.1U	1	
C8013	F1G1C104A042	16V 0.1U	1	
C8014	F1G1C104A042	16V 0.1U	1	
C8015	F1G1C104A042	16V 0.1U	1	
C8016	F1G1C104A042	16V 0.1U	1	
C8018	F1G1C104A042	16V 0.1U	1	
C8020	F1G1C104A042	16V 0.1U	1	
C8021	F1G1C104A042	16V 0.1U	1	
C8022	F1G1C104A042	16V 0.1U	1	
C8023	F1G1C104A042	16V 0.1U	1	
C8026	F1G1C104A042	16V 0.1U	1	
C8051	ECJ1VB0J105K	6.3V 1U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C8052	F1G1A104A014	10V 0.1U	1	
C8053	F1G1C104A042	16V 0.1U	1	
C8054	F1G1H221A495	50V 220P	1	
C8055	ECJ1VB0J105K	6.3V 1U	1	
C8056	F1G1E2220002	25V 0.0022U	1	
C8057	ECJ1VB0J105K	6.3V 1U	1	
C8151	ECJ2FB0J106K	6.3V 10U	1	
C8152	ECJ1VB1C105K	16V 1U	1	
C8201	F2G0J101A066	6.3V 100U	1	
C8202	F1G1A104A014	10V 0.1U	1	
C8203	F1G1A104A014	10V 0.1U	1	
C8211	F1G1E122A062	25V 0.0012U	1	
C8221	F1G1E102A062	25V 0.001U	1	
C8222	F1G1E821A056	25V 820P	1	
C8225	F1G1E102A062	25V 0.001U	1	
C8226	F1G1E102A062	25V 0.001U	1	
C8231	F1G1A104A014	10V 0.1U	1	
C8232	F1G1A104A014	10V 0.1U	1	
C8251	F2G0J221A065	6.3V 220U	1	
C8252	F1G1C104A042	16V 0.1U	1	
C8255	F2G1C470A076	16V 47U	1	
C8256	F1G1C104A042	16V 0.1U	1	
C8257	F1G1C104A042	16V 0.1U	1	
C8261	F1G1C104A042	16V 0.1U	1	
C8301	F2G0J221A031	6.3V 220U	1	
C8302	F2G0J330A031	6.3V 33U	1	
C8303	F1G1A104A014	10V 0.1U	1	
C8304	F1G1A104A014	10V 0.1U	1	
C8305	F1G1A104A014	10V 0.1U	1	
C8306	F1G1A104A014	10V 0.1U	1	
C8311	F1G1A104A014	10V 0.1U	1	
C8312	ECJ1VB0J105K	6.3V 1U	1	
C8313	ECJ1VB0J105K	6.3V 1U	1	
C8401	F1G1H150A542	50V 15P	1	
C8423	F2G0J330A083	6.3V 33U	1	
C8424	F1G1C104A042	16V 0.1U	1	
C8429	F1G1C104A042	16V 0.1U	1	
C8430	F2G0J470A083	6.3V 47U	1	
C8501	F2G0J101A031	6.3V 100U	1	
C8502	F1G1C104A042	16V 0.1U	1	
C8503	F1G1C104A042	16V 0.1U	1	
C8504	F1G1C104A042	16V 0.1U	1	
C8505	F1G1C104A042	16V 0.1U	1	
C8511	ECJ1VB0J105K	6.3V 1U	1	
C8512	ECJ1VB0J105K	6.3V 1U	1	
C8513	F1G1A104A014	10V 0.1U	1	
C8514	F1G1A104A014	10V 0.1U	1	
C8515	F1G1A104A014	10V 0.1U	1	
C8516	F1G1A104A014	10V 0.1U	1	
C8521	F1G1A104A014	10V 0.1U	1	
C8522	F1G1A104A014	10V 0.1U	1	
C8523	F1G1C104A042	16V 0.1U	1	
C8524	F1G1C104A042	16V 0.1U	1	
C8525	F1G1C562A040	16V 0.0056U	1	
C8526	F1G1C183A004	16V 0.018U	1	
C8527	F1G1C333A004	16V 0.033U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C8528	ECJ1VB0J105K	6.3V 1U	1	
C8529	ECJ1VB0J105K	6.3V 1U	1	
C8530	F1G1C104A042	16V 0.1U	1	
C8531	F1G1H1010005	50V 100P	1	
C8532	F1G1H221A495	50V 220P	1	
C8533	F1G1C104A042	16V 0.1U	1	
C8541	F1G1E472A062	25V 4700P	1	
C8550	F2G0J330A031	6.3V 33U	1	
C8551	F1G1C104A042	16V 0.1U	1	
C8552	F2G0J470A063	6.3V 47U	1	
C8553	F2G0J470A031	6.3V 47U	1	
C8554	ECJ1VB0J105K	6.3V 1U	1	
C8561	F1G1C104A042	16V 0.1U	1	
C8562	F2G0J470A063	6.3V 47U	1	
C8563	F2G0J470A031	6.3V 47U	1	
C8564	ECJ1VB0J105K	6.3V 1U	1	
C8571	F1K1A1060017	10V 10U	1	
C8572	F1G1C104A042	16V 0.1U	1	
C8601	F1G1C104A042	16V 0.1U	1	
C8602	F1G1C153A004	16V 0.015U	1	
C8606	F1G1C104A042	16V 0.1U	1	
C8607	F1G1C562A040	16V 0.0056U	1	
C8621	F1G1H180A451	50V 18P	1	
C8622	F1G1H200A451	50V 20P	1	
C8651	F1G1C104A042	16V 0.1U	1	
C8652	F1G1C104A042	16V 0.1U	1	
C8702	F1G1A104A014	10V 0.1U	1	
CN1	K1MY22BA0053	SLOT	1	EB
D1011	B0EDKT000009	DIODE	1	
D1031	B0HADV000001	DIODE	1	
D1041	B0HAGM000006	DIODE	1	
D1051	MAZ40910HF	DIODE	1	
D1061	MA2C16500E	DIODE	1	
D1071	MAZ41000MF	DIODE	1	
D1072	MA2C16500E	DIODE	1	
D1081	MAZ40910HF	DIODE	1	
D1082	MA2C16500E	DIODE	1	
D1111	B0JAMG000013	DIODE	1	
D1121	B0JAMG000013	DIODE	1	
D1122	B0EAKM000117	DIODE	1	
D1141	B0JAMK000023	DIODE	1	
D1151	B0JAMK000023	DIODE	1	
D1152	B0JAMK000023	DIODE	1	
D1153	B0EAKM000122	DIODE	1	
D1171	B0JAME000037	DIODE	1	
D3821	MA3X152A0L	DIODE	1	EB
D4301	MAZ40560HF	DIODE	1	
D6081	MAZ40910LF	ZENER DIODE	1	
D6101	LNJ201LPQJA	LED	1	
D6102	MA2J11100L	DIODE	1	
D6103	MA2J11100L	DIODE	1	
D6104	MA2J11100L	DIODE	1	
D8211	MA2J11100L	DIODE	1	
DP6081	A2BA00000229	FL DISPLAY SCREEN	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
F1001	K5D162BLA013	FUSE	1	
FP2601	K1MN07B00009	7PIN JACK	1	
FP3501	K1KY14AA0274	14P	1	
FP3502	K1KY20AA0274	20P	1	
FP8251	K1MN06AA0076	JACK	1	
FP8252	K1MN07AA0076	JACK	1	
FP8531	K1MY22AA0027	JACK	1	
IC1021	C0DACZH00033	IC	1	
IC1101	C0DAEMB00003	IC	1	
IC1151	C0DBZHG00047	IC	1	
IC1195	C0DBZGG00062	IC	1	
IC3501	C9ZB00000498	IC	1	
IC3502	C1AB00001935	IC	1	EB
IC3802	C1AB00001731	IC	1	EB
IC3811	C9ZB00000461	IC	1	EB
IC4301	C0ABBB000230	IC	1	
IC6001	C0HBB0000057	IC	1	
IC8001	MN2DS0014VP	DV4.1	1	
IC8051	C3ABPG000145	IC	1	EB/GN
IC8051	C3ABMG000228	IC	1	PX
IC8151	C0DBEYY00016	IC	1	
IC8251	C0GBG0000054	IC	1	
IC8601	C0EBA0000029	IC	1	
IC8606	C0EBE0000120	RESET IC	1	
IC8651	RFKWSSA0B080	IC	1	[SPC]
IP3802	K5H501Z00005	IC PROTECTOR	1	
IP4751	K5H252Z00003	IC PROTECTOR	1	
IR6131	B3RAD0000115	REMOTE RECEIVING SENSOR	1	
JK3871	K1FB121B0016	JACK, AV	1	EB
JK4401	K2YZ19000001	JACK, AUDIO VIDEO OUT	1	PX/GN
JK4401	K2YZ07000005	JACK, AUDIO VIDEO OUT	1	EB
K8101	ERJ3GEY0R00V	1/10W 0	1	
K8102	ERJ3GEY0R00V	1/10W 0	1	
K8103	ERJ3GEY0R00V	1/10W 0	1	
K8104	ERJ6GEY0R00V	1/10W 0	1	
K8105	ERJ3GEY0R00V	1/10W 0	1	
K8251	ERJ3GEY0R00V	1/10W 0	1	
K8261	ERJ2GE0R00X	1/16W 0	1	
K8321	ERJ2GE0R00X	1/16W 0	1	
K8325	ERJ2GE0R00X	1/16W 0	1	
K8331	ERJ2GE0R00X	1/16W 0	1	
K8335	ERJ2GE0R00X	1/16W 0	1	
K8341	ERJ2GE0R00X	1/16W 0	1	
K8401	ERJ3GEY0R00V	1/10W 0	1	
K8402	ERJ3GEY0R00V	1/10W 0	1	
K8403	ERJ3GEY0R00V	1/10W 0	1	
K8421	ERJ3GEY0R00V	1/10W 0	1	
K8571	ERJ3GEY0R00V	1/10W 0	1	
K8572	ERJ3GEY0R00V	1/10W 0	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
K8701	ERJ2GE0R00X	1/16W 0	1	
K8705	ERJ2GE0R00X	1/16W 0	1	
K8706	ERJ2GE0R00X	1/16W 0	1	
K8707	ERJ2GE0R00X	1/16W 0	1	
K8708	ERJ2GE0R00X	1/16W 0	1	
K8709	ERJ2GE0R00X	1/16W 0	1	
L1001	ELF15N003A	NOISE FILTER	1	
L1111	G0A100HA0023	COIL 10UH	1	
L1117	G0C100JA0048	COIL 10UH	1	
L1131	G0C330KA0065	COIL 33UH	1	
L1141	G0C330KA0065	COIL 33UH	1	
L1151	G0A220GA0026	COIL 22UH	1	
L3501	G0C220JA0019	COIL 22UH	1	
L3502	G0C220JA0019	COIL 22UH	1	
L6001	G0C101JA0019	COIL 100UH	1	
L8201	G1C100K00019	CHIP INDUCTOR	1	
L8301	G1C100K00019	CHIP INDUCTOR	1	
L8302	G1C100K00019	CHIP INDUCTOR	1	
L8501	G1C100K00019	CHIP INDUCTOR	1	
L8550	G1C100KA0055	CHIP INDUCTOR 10UH	1	
LB3531	J0JBC0000117	COIL	1	GN/PX
LB3532	J0JBC0000117	COIL	1	GN/PX
LB3533	J0JBC0000117	COIL	1	
LB3534	J0JCC0000186	COIL	1	
LB3535	J0JBC0000117	COIL	1	
LB3536	J0JBC0000117	COIL	1	
LB3871	J0JBC0000117	COIL	1	
LB3872	J0JBC0000117	COIL	1	
LB3873	J0JBC0000117	COIL	1	
LB3874	J0JBC0000117	COIL	1	
LB8001	J0JHC0000097	COIL	1	
LB8011	J0JHC0000097	COIL	1	
LB8255	ERJ3GEY0R00V	1/10W 0	1	
LB8256	ERJ3GEY0R00V	1/10W 0	1	
LB8257	ERJ3GEY0R00V	1/10W 0	1	
LB8258	ERJ3GEY0R00V	1/10W 0	1	
LB8259	ERJ3GEY0R00V	1/10W 0	1	
LB8260	ERJ3GEY0R00V	1/10W 0	1	
LB8261	ERJ2GE0R00X	1/16W 0	1	
LB8262	ERJ2GE0R00X	1/16W 0	1	
LB8264	ERJ3GEY0R00V	1/10W 0	1	
LB8265	ERJ3GEY0R00V	1/10W 0	1	
LB8301	J0JBC0000042	COIL	1	
LB8302	J0JBC0000042	COIL	1	
LB8303	J0JBC0000042	COIL	1	
LB8304	J0JBC0000042	COIL	1	
LB8305	J0JBC0000042	COIL	1	
LB8421	ERJ2GE0R00X	1/16W 0	1	
LB8422	ERJ2GE0R00X	1/16W 0	1	
LB8423	ERJ2GE0R00X	1/16W 0	1	
LB8424	ERJ2GE0R00X	1/16W 0	1	
LB8431	ERJ2GE0R00X	1/16W 0	1	
LB8491	ERJ2GE0R00X	1/16W 0	1	
LB8530	J0JHC0000097	COIL	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
LB8531	ERJ2GE0R00X	1/16W 0	1	
LB8551	J0JBC0000042	COIL	1	
LB8561	J0JBC0000042	COIL	1	
LB8571	J0JBC0000042	COIL	1	
LB8691	ERJ2GE0R00X	1/16W 0	1	
LB8692	ERJ2GE0R00X	1/16W 0	1	
LB8693	ERJ2GE0R00X	1/16W 0	1	
LB8694	ERJ2GE0R00X	1/16W 0	1	
LB8695	ERJ2GE0R00X	1/16W 0	1	
LB8696	ERJ2GE0R00X	1/16W 0	1	
LB8697	ERJ2GE0R00X	1/16W 0	1	
P1001	K2AA2B000011	AC JACK	1	
PC1	RPGC0440	PACKING CASE	1	EB
PC1	RPGC0397	PACKING CASE	1	GN
PC1	RPGC0400	PACKING CASE	1	PX
PC2	RPNC0110A	CUSHION(A)	1	
PC3	RPNC0110B	CUSHION(B)	1	
PC4	RPFC0026-B	POLYETHYLENE BAG	1	
PJ6101	K1MP07A00011	JACK	1	
PS8101	K1KY14AA0275	CONNECTOR(14P)	1	
PS8301	K1KY20AA0275	CONNECTOR(20P)	1	
Q1051	B3PBA0000241	TRANSISTOR	1	
Q1115	B1DHDD000029	TRANSISTOR	1	
Q3801	B1ABDF000033	TRANSISTOR	1	
Q3821	XN0460100L	TRANSISTOR	1	EB
Q3851	B1ABDF000033	TRANSISTOR	1	EB
Q3852	B1ABDF000033	TRANSISTOR	1	EB
Q4422	B1ABDF000033	TRANSISTOR	1	
Q4423	B1ABDF000033	TRANSISTOR	1	
Q4751	B1ABDF000033	TRANSISTOR	1	
Q6085	B1ABGC000011	TRANSISTOR	1	
Q8251	B1ABDF000026	TRANSISTOR	1	
Q8252	B1ABDF000026	TRANSISTOR	1	
Q8421	B1ABDF000033	TRANSISTOR	1	
Q8531	B1CFHC000003	TRANSISTOR	1	
Q8532	B1CFHC000003	TRANSISTOR	1	
Q8533	B1ABDF000026	TRANSISTOR	1	
Q8551	2SD1819A0L	TRANSISTOR	1	
Q8552	2SB09700RL	TRANSISTOR	1	
Q8561	2SD1819A0L	TRANSISTOR	1	
Q8562	2SB09700RL	TRANSISTOR	1	
QR1115	B1GBCFNN0043	TRANSISTOR	1	
QR3501	B1GBCFLL0043	TRANSISTOR	1	EB
QR3502	B1GBCFLL0043	TRANSISTOR	1	EB
QR3821	B1GBCFLL0043	TRANSISTOR	1	EB
QR3822	B1GBCFLL0043	TRANSISTOR	1	EB
QR3823	B1GDCFJJ0041	TRANSISTOR	1	
QR4302	B1GDCFEJ0008	TRANSISTOR	1	
QR4306	B1GBCFJA0017	TRANSISTOR	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
QR6001	B1GBCFJJ0041	TRANSISTOR	1	
QR6002	B1GDCFJJ0041	TRANSISTOR	1	
QR6003	B1GDCFJJ0041	TRANSISTOR	1	
QR6004	B1GBCFJJ0041	TRANSISTOR	1	
QR6101	B1GBCFEN0014	TRANSISTOR	1	
QR8420	B1GBCFJJ0040	TRANSISTOR	1	
R1001	ERDS2FJ474T	1/4W 470K	1	
R1002	ERDS2FJ474T	1/4W 470K	1	
R1031	ERG2SJ683P	2W 68K	1	
R1041	ERX12SJ4R7E	1/2W 4.7	1	
R1051	EROS2THF2002	1/4W 20K	1	
R1061	ERDS2TJ182T	1/4W 1.8K	1	
R1062	ERDS2TJ183T	1/4W 1.8K	1	
R1071	EROS2THF4301	1/4W 4.3K	1	
R1081	EROS2THF3301	1/4W 3.3K	1	
R1083	EROS2THF2702	1/4W 27K	1	
R1084	EROS2THF2701	1/4W 2.7K	1	
R1101	ERDS2TJ181T	1/4W 180	1	
R1102	EROS2THF4701	1/4W 4.7K	1	
R1103	EROS2THF4701	1/4W 4.7K	1	
R1104	ERJ6GEYJ102V	1/10W 1K	1	
R1105	ERJ3GEYJ222V	1/10W 2.2K	1	
R1106	ERJ3GEYJ102V	1/10W 1K	1	
R1107	ERJ3GEYJ103V	1/10W 10K	1	
R1115	ERJ3GEYJ104V	1/10W 100K	1	
R1116	ERJ3GEYJ102V	1/10W 1K	1	
R3501	ERJ3GEYJ223V	1/10W 22K	1	
R3511	ERJ3GEY0R00V	1/10W 0	1	
R3512	ERJ3GEY0R00V	1/10W 0	1	
R3513	ERJ3GEY0R00V	1/10W 0	1	
R3514	ERJ3GEY0R00V	1/10W 0	1	
R3515	ERJ3GEY0R00V	1/10W 0	1	
R3522	ERJ3GEYJ103V	1/10W 10K	1	GN/PX
R3531	ERJ3GEYJ750V	1/10W 75	1	GN/PX
R3532	ERJ3GEYF750V	1/10W 75	1	GN/PX
R3521	ERJ3GEYJ223V	1/10W 22K	1	
R3533	ERJ3GEYF750V	1/10W 75	1	
R3534	ERJ3GEYF750V	1/10W 75	1	
R3535	ERJ3GEYJ750V	1/10W 75	1	
R3536	ERJ3GEYJ750V	1/10W 75	1	
R3821	ERJ3GEYJ223V	1/10W 22K	1	
R3822	ERJ3GEYJ223V	1/10W 22K	1	
R3823	ERJ3GEYJ472V	1/10W 4.7K	1	EB
R3824	ERJ3GEYJ223V	1/10W 22K	1	
R3825	ERJ3GEYJ472V	1/10W 4.7K	1	EB
R3826	ERJ3GEYJ183V	1/10W 18K	1	EB
R3827	ERJ3GEYJ223V	1/10W 22K	1	
R3828	ERJ3GEYJ471V	1/10W 470	1	EB
R3851	ERJ3GEYJ681V	1/10W 680	1	
R3852	ERJ3GEYJ821V	1/10W 820	1	
R3853	ERJ3GEYJ821V	1/10W 820	1	
R3854	ERJ3GEYJ681V	1/10W 680	1	
R3871	ERJ3GEYF750V	1/10W 75	1	
R3872	ERJ3GEYF750V	1/10W 75	1	
R3873	ERJ3GEYF750V	1/10W 75	1	
R3874	ERJ3GEYF750V	1/10W 75	1	

[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R3875	ERJ3GEYJ221V	1/10W 220	1	
R3876	ERJ3GEYJ221V	1/10W 220	1	
R3877	ERJ3GEYJ750V	1/10W 75	1	
R3878	ERJ3GEYJ750V	1/10W 75	1	
R4301	ERJ3GEYJ271V	1/10W 270	1	
R4304	ERJ3GEYJ222V	1/10W 2.2K	1	
R4309	ERJ3GEYJ223V	1/10W 22K	1	
R4320	ERJ3GEYJ222V	1/10W 2.2K	1	
R4331	D0HB562ZA002	1/16W 5.6K	1	
R4332	D0HB562ZA002	1/16W 5.6K	1	
R4355	D0HB153ZA002	1/10W 15K	1	
R4356	D0HB153ZA002	1/10W 15K	1	
R4422	ERJ3GEYJ473V	1/10W 47K	1	
R4423	ERJ3GEYJ473V	1/10W 47K	1	
R4428	ERJ3GEYJ681V	1/10W 680	1	
R4429	ERJ3GEYJ681V	1/10W 680	1	
R4451	ERJ3GEYJ821V	1/10W 820	1	
R4452	ERJ3GEYJ821V	1/10W 820	1	
R4459	ERJ3GEYJ221V	1/10W 220	1	
R4460	ERJ3GEYJ221V	1/10W 220	1	
R4751	ERJ3GEYJ102V	1/10W 1K	1	
R4752	ERJ3GEYJ102V	1/10W 1K	1	
R4753	ERJ3GEYJ102V	1/10W 1K	1	
R4754	ERJ3GEYJ221V	1/10W 220	1	
R4755	ERJ3GEYJ750V	1/10W 75	1	
R4756	ERJ3GEYJ103V	1/10W 10K	1	
R4801	ERJ3GEY0R00V	1/10W 0	1	
R4810	ERJ3GEY0R00V	1/10W 0	1	
R6001	ERJ3GEYJ104V	1/10W 100K	1	
R6002	ERJ3GEYJ332V	1/10W 3.3K	1	
R6081	ERQ14AJW271E	1/4W 270	1	
R6085	ERJ3GEYJ822V	1/10W 8.2K	1	
R6086	ERJ3GEYJ104V	1/10W 100K	1	
R6101	ERJ3GEYJ331V	1/10W 330	1	
R6102	ERJ3GEYJ331V	1/10W 330	1	
R6103	ERJ3GEYJ103V	1/10W 10K	1	
R6104	ERJ3GEYJ103V	1/10W 10K	1	
R6105	ERJ3GEY0R00V	1/10W 0	1	
R6106	ERJ3GEY0R00V	1/10W 0	1	
R8001	ERJ2GEJ103X	1/16W 10K	1	
R8002	ERJ2GEJ473X	1/16W 47K	1	
R8003	ERJ2GEJ103X	1/16W 10K	1	EB/GN
R8004	ERJ2GEJ103X	1/16W 10K	1	
R8009	ERJ2GEJ103X	1/16W 10K	1	
R8011	ERJ2GEJ220X	1/16W 22	1	
R8012	ERJ2GEJ220X	1/16W 22	1	
R8013	ERJ2GEJ220X	1/16W 22	1	
R8014	ERJ2GEJ103X	1/16W 10K	1	
R8015	ERJ2GEJ103X	1/16W 10K	1	
R8016	ERJ2GEJ103X	1/16W 10K	1	
R8017	ERJ2GEJ103X	1/16W 10K	1	
R8018	ERJ2GEJ103X	1/16W 10K	1	
R8020	ERJ2GEJ220X	1/16W 22	1	PX
R8041	ERJ2GEJ330X	1/16W 33	1	
R8153	ERJ2RHD102X	1/16W 1K	1	
R8211	ERJ2GEJ103X	1/16W 10K	1	
R8221	ERJ2GEJ822X	1/16W 8.2K	1	

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Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R8225	ERJ2GEJ822X	1/16W 8.2K	1	
R8230	ERJ2GEJ222X	1/16W 2.2K	1	
R8231	ERJ2GEJ752X	1/16W 7.5K	1	
R8232	ERJ2GEJ752X	1/16W 7.5K	1	
R8251	ERJ2GEJ103X	1/16W 10K	1	
R8252	ERJ2GEJ152X	1/16W 1.5K	1	
R8253	ERJ2GEJ103X	1/16W 10K	1	
R8254	ERJ2GEJ104X	1/16W 100K	1	
R8261	ERJ2GEJ203X	1/16W 20K	1	
R8262	ERJ2GEJ153X	1/16W 15K	1	
R8263	ERJ2GEJ203X	1/16W 20K	1	
R8264	ERJ2GEJ153X	1/16W 15K	1	
R8311	ERJ2RHD242X	1/16W 2.4K	1	
R8312	ERJ2RHD102X	1/16W 1K	1	
R8313	ERJ2RHD273X	1/16W 27K	1	
R8314	ERJ2GEJ222X	1/16W 2.2K	1	
R8321	ERJ3RBD201V	1/16W 200	1	
R8322	ERJ3GEY0R00V	1/10W 0	1	
R8325	ERJ3RBD201V	1/16W 200	1	
R8326	ERJ3GEY0R00V	1/10W 0	1	
R8331	ERJ3RBD201V	1/16W 200	1	
R8332	ERJ3GEY0R00V	1/10W 0	1	
R8335	ERJ3RBD201V	1/16W 200	1	
R8341	ERJ3RBD201V	1/16W 200	1	
R8401	ERJ2GEJ101X	1/16W 100	1	
R8403	ERJ2GEJ101X	1/16W 100	1	
R8420	ERJ2GEJ222X	1/16W 2.2K	1	
R8421	ERJ2GE0R00X	1/16W 0	1	
R8422	ERJ2GEJ103X	1/16W 10K	1	
R8423	ERJ2GE0R00X	1/16W 0	1	
R8424	ERJ2GEJ103X	1/16W 10K	1	
R8425	ERJ2GEJ103X	1/16W 10K	1	
R8430	ERJ3GEYJ102V	1/10W 1K	1	
R8531	ERJ2GEJ152X	1/16W 1.5K	1	
R8532	ERJ2GEJ222X	1/16W 2.2K	1	
R8533	ERJ2GE0R00X	1/16W 0	1	
R8534	ERJ2GEJ103X	1/16W 10K	1	
R8535	ERJ2GEJ103X	1/16W 10K	1	
R8537	ERJ3GEY0R00V	1/10W 0	1	
R8538	ERJ3GEY0R00V	1/10W 0	1	
R8541	ERJ2GEJ153X	1/16W 15K	1	
R8551	ERJ2GE0R00X	1/16W 0	1	
R8552	ERJ2GEJ102X	1/16W 1K	1	
R8553	ERJ2GEJ102X	1/16W 1K	1	
R8554	ERJ2GEJ100X	1/16W 10	1	
R8555	ERJ2GEJ2R2X	1/16W 2.2	1	
R8556	ERJ3GEYJ560V	1/10W 56	1	
R8557	ERJ3GEYJ510V	1/10W 51	1	
R8558	ERJ2GEJ473X	1/16W 47K	1	
R8559	ERJ2GEJ153X	1/16W 15K	1	
R8561	ERJ2GE0R00X	1/16W 0	1	
R8562	ERJ2GEJ102X	1/16W 1K	1	
R8563	ERJ2GEJ102X	1/16W 1K	1	
R8564	ERJ2GEJ220X	1/16W 22	1	
R8565	ERJ2GEJ2R2X	1/16W 2.2	1	
R8566	ERJ3GEYJ560V	1/10W 56	1	
R8567	ERJ3GEYJ510V	1/10W 51	1	

[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R8568	ERJ2GEJ473X	1/16W 47K	1	
R8601	ERJ2GEJ104X	1/16W 100K	1	
R8621	ERJ2GEJ105X	1/16W 1M	1	
R8622	ERJ2RHD561X	1/16W 560	1	
R8636	ERJ2GEJ104X	1/16W 100K	1	
R8701	ERJ2GEJ822X	1/16W 8.2K	1	
R8702	ERJ2GEJ103X	1/16W 10K	1	
R8704	ERJ2GEJ103X	1/16W 10K	1	EB/PX
R8705	ERJ2GEJ103X	1/16W 10K	1	GN
R8706	ERJ2GEJ103X	1/16W 10K	1	
R8708	ERJ2GEJ103X	1/16W 10K	1	PX/GN
R8709	ERJ2GEJ103X	1/16W 10K	1	EB
R8710	ERJ2GEJ103X	1/16W 10K	1	
R8712	ERJ2GEJ222X	1/16W 2.2K	1	
RX8011	D1H88204A024	RESISTOR-RESISTOR	1	
RX8012	D1H88204A024	RESISTOR-RESISTOR	1	
RX8013	D1H88204A024	RESISTOR-RESISTOR	1	
RX8014	D1H88204A024	RESISTOR-RESISTOR	1	
RX8015	D1H88204A024	RESISTOR-RESISTOR	1	
RX8016	D1H88204A024	RESISTOR-RESISTOR	1	
RX8017	D1H88204A024	RESISTOR-RESISTOR	1	
RX8018	D1H422020001	RESISTOR-RESISTOR	1	
RX8019	D1H422020001	RESISTOR-RESISTOR	1	
RX8020	D1H422020001	RESISTOR-RESISTOR	1	EB/GN
RX8031	D1H447220001	RESISTOR-RESISTOR	1	
RX8032	D1H447220001	RESISTOR-RESISTOR	1	
RX8531	D1H456020001	RESISTOR-RESISTOR	1	
RX8532	D1H85604A024	RESISTOR-RESISTOR	1	
RX8533	D1H456020001	RESISTOR-RESISTOR	1	
S2601	K0L1BA000078	SWITCH	1	
S2602	K0L1BA000078	SWITCH	1	
S6151	EVQ11G05R	SWITCH	1	
S6152	EVQ11G05R	SWITCH	1	
S6161	EVQ11G05R	SWITCH	1	
S6162	EVQ11G05R	SWITCH	1	
S6171	EVQ11G05R	SWITCH	1	
S6172	EVQ11G05R	SWITCH	1	
T1021	G4D2A0000265	TRANSFORMER	1	
VA1002	ERZVA5Z471	TRANSIENT/SURGE ABSORBER	1	
W300	ERJ3GEY0R00V	1/20W 0	1	
W301	ERJ3GEY0R00V	1/20W 0	1	
W302	ERJ3GEY0R00V	1/20W 0	1	
W303	ERJ3GEY0R00V	1/20W 0	1	
W304	ERJ3GEY0R00V	1/20W 0	1	
W305	ERJ3GEY0R00V	1/20W 0	1	
W306	ERJ3GEY0R00V	1/20W 0	1	
W307	ERJ3GEY0R00V	1/20W 0	1	
W308	ERJ3GEY0R00V	1/20W 0	1	
W309	ERJ3GEY0R00V	1/20W 0	1	
W310	ERJ3GEY0R00V	1/20W 0	1	
W311	ERJ3GEY0R00V	1/20W 0	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
W312	ERJ3GEY0R00V	1/20W 0	1	
W313	ERJ3GEY0R00V	1/20W 0	1	
W314	ERJ3GEY0R00V	1/20W 0	1	
W315	ERJ3GEY0R00V	1/20W 0	1	
W316	ERJ3GEY0R00V	1/20W 0	1	
W317	ERJ3GEY0R00V	1/20W 0	1	
W320	ERJ3GEY0R00V	1/20W 0	1	
W321	ERJ3GEY0R00V	1/20W 0	1	
X8621	H0J270500080	CRYSTAL OSCILLATOR	1	
ZA1001	EYF52BCY	FUSE HOLDER	1	
ZA1002	EYF52BCY	FUSE HOLDER	1	
ZA1111	RMCC0001-1	EARTH SPRING	1	
ZA1112	K4CZ01000027	TERMINAL	1	
ZA4751	K4CZ01000027	TERMINAL	1	
ZA4754	RMCC0027	TERMINAL	1	

19. SCHEMATIC DIAGRAM FOR PRINTING WITH A4

FLE060200000JA

Ref No.	IC1021									IC1101				IC1195						
MODE	1	2	3	4	5	6	7	9		1	2	3		1	2	3				
PLAY	0	0	0	0	0	0	0	1.9		0.1	0	0		10.9		12.7				
STOP	0	0	0	0	0	0	0	1.9		0.1	0	0		14.4		0				

Ref No.	IC3501																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
PLAY	0	0	0	0	0	0	0	0	9.8	7.7	9.9	10	0	9.3	9.3	9.7				
STOP	0	9.7	2.5	1.7	2.6	1.7	0	2.3	0	7.5	0	0	0	0	9.1	9.8				

Ref No.	IC3502(EB)						IC3802(EB)													
MODE	1	2	3	4	5	6	1	2	3	4	5	6								
PLAY	0	1.8	4.9	2.2	0	1.8	0	2.5	4.9	2.5	0	2.5								
STOP	0	0	0	0	0	0	-1.1	1.4	3.8	1.4	-1.1	1.4								

Ref No.	IC3811(EB)																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PLAY	4.9	0	0	2.2	4.9	4.4	0	1.5	2.2	4.9	0.4	0	0.5	0	0.5	4.9	3.3	3.3	0	2.4
STOP	3.8	0	0	12.7	15.6	10.4	10.6	12.1	12.8	15.6	10.4	10.6	10.2	10.7	10.2	15.6	13.3	13.3	10.6	13

Ref No.	IC3811(EB)											
MODE	21	22	23	24	25	26	27	28	29	30	31	32
PLAY	2.4	0	2.4	2.4	0	1.3	1.5	0	0	0	0	2.3
STOP	13	10.6	13	13	10.6	11.9	12	10.6	12	12	10.7	13

Ref No.	IC4301							
MODE	1	2	3	4	5	6	7	8
PLAY	7.6	7.6	7.6	-2.4	7.6	7.6	0	0
STOP	7.5	7.5	7.5	-2.3	7.5	7.5	7.5	20.3

Ref No.	IC6001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PLAY	0	0	0	0	1.9	3	3.3	3.3	1.4	0	0	0	3.3	-9.5	-9.5	-7.2	-9.5	-9.5	-7.1	-9.5
STOP	0	8.3	8.3	8.3	10.2	11.3	11.6	11.6	9.6	8.3	8.3	8.3	11.6	3.3	3.3	3.3	1.3	1.3	1.3	1.3

Ref No.	IC6001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
PLAY	-9.5	-4.9	-9.5	-9.5	-7.1	-9.5	-9.5	-9.5	-9.4	-9.7	-9.6	-9.6	-9.6	-9.7	-9.6	-9.6	-9.7	-9.6	0	-7.4
STOP	0	-0.9	1.3	1.3	1.3	5.8	5.8	3.5	3.5	1.1	-1.1	1.1	1.1	-1.1	-1.1	-1.1	-1.1	0	0	1.1

Ref No.	IC6001				Q1051					Q1115						Q3801(EB)		
MODE	41	42	43	44	1	2	3	4		1	2	3	4	5	6	B	C	E
PLAY	-7.4	-7.4	-3.3	0	13.9	-0.1	-0.1	4.3		13.9	13.8	13.8	13.8	13.8	8.9	12.1	11.4	12
STOP	-6.1	1.1	11.6	8.3	5.2	0	0	4.3		13.9	13.8	13.8	13.8	13.8	8.8	12.9	12.2	12.8

Ref No.	Q3821(EB)						Q3851(EB)			Q3852(EB)			Q4422		
MODE	1	2	3	4	5	6	B	C	E	B	C	E	B	C	E
PLAY	0	2.5	4.9	2.4	0	2.5	0	0	0.5	0	0	0.5	8.9	8.8	2.9
STOP	0	0	0	0	0	0	0	0	0.7	0	0	0.7	8.8	8.8	9.5

Ref No.	Q4423				Q4751				Q6085				QR1115				QR3501(EB)			
MODE	B	C	E		B	C	E		B	C	E		B	C	E		B	C	E	
PLAY	8.8	8.8	2.9		13.8	10.6	11.3		2.4	2.4	3.1		8.8	8.8	12		0	0	3.2	
STOP	8.8	8.8	9.5		13.8	10.6	11.3		2.4	3.1	2.3		8.8	8.8	12		0	0	0	

Ref No.	QR3502(EB)				QR3821(EB)				QR3822(EB)				QR3823(EB)				QR4302(EB)			
MODE	B	C	E		B	C	E		B	C	E		B	C	E		B	C	E	
PLAY	2.6	0	0		12	0	0		0	0	4.9		11.4	11.4	0		0.5	0	0	
STOP	0	0	0		11.1	0	0		10.7	0	0		12.2	12.2	0		2.5	2.5	0	

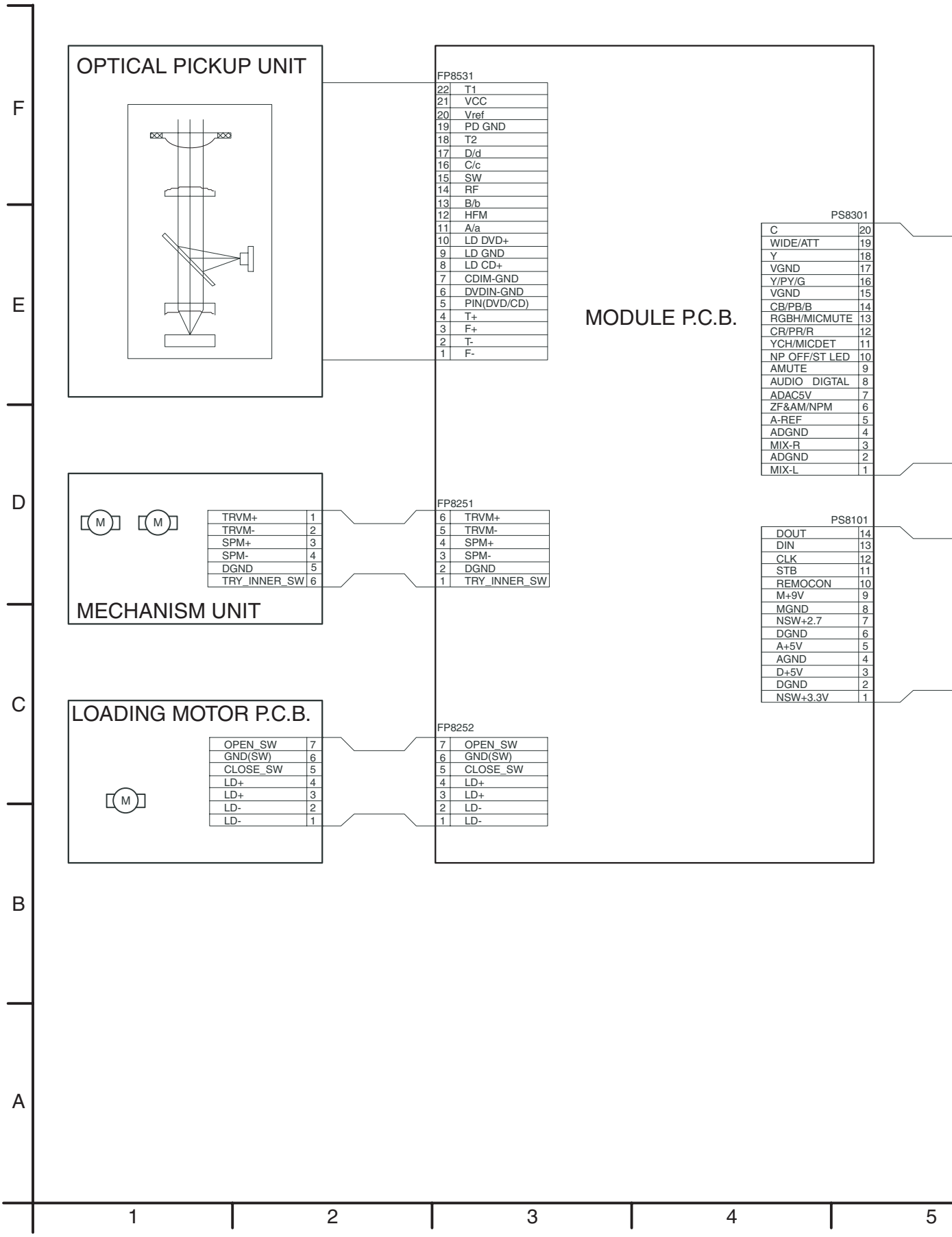
Ref No.	QR4306				QR6001				QR6002				QR6003							
MODE	B	C	E		B	C	E		B	C	E		B	C	E					
PLAY	8.9	8.8	12.9		-1.4	-1.5	12		12	12.1	8.8		12	12.1	8.8					
STOP	11.3	8.8	8.8		0	0.5	0.5		0	3.5	3.5		0.5	3.5	3.5					

Ref No.	Q8562				Q8533				QR8420											
MODE	B	C	E		B	C	E		B	C	E									
PLAY	1.8	0	0		0.2	0	0		0	0	0									
STOP	5.9	0	0		0	0	5		0	0	0									

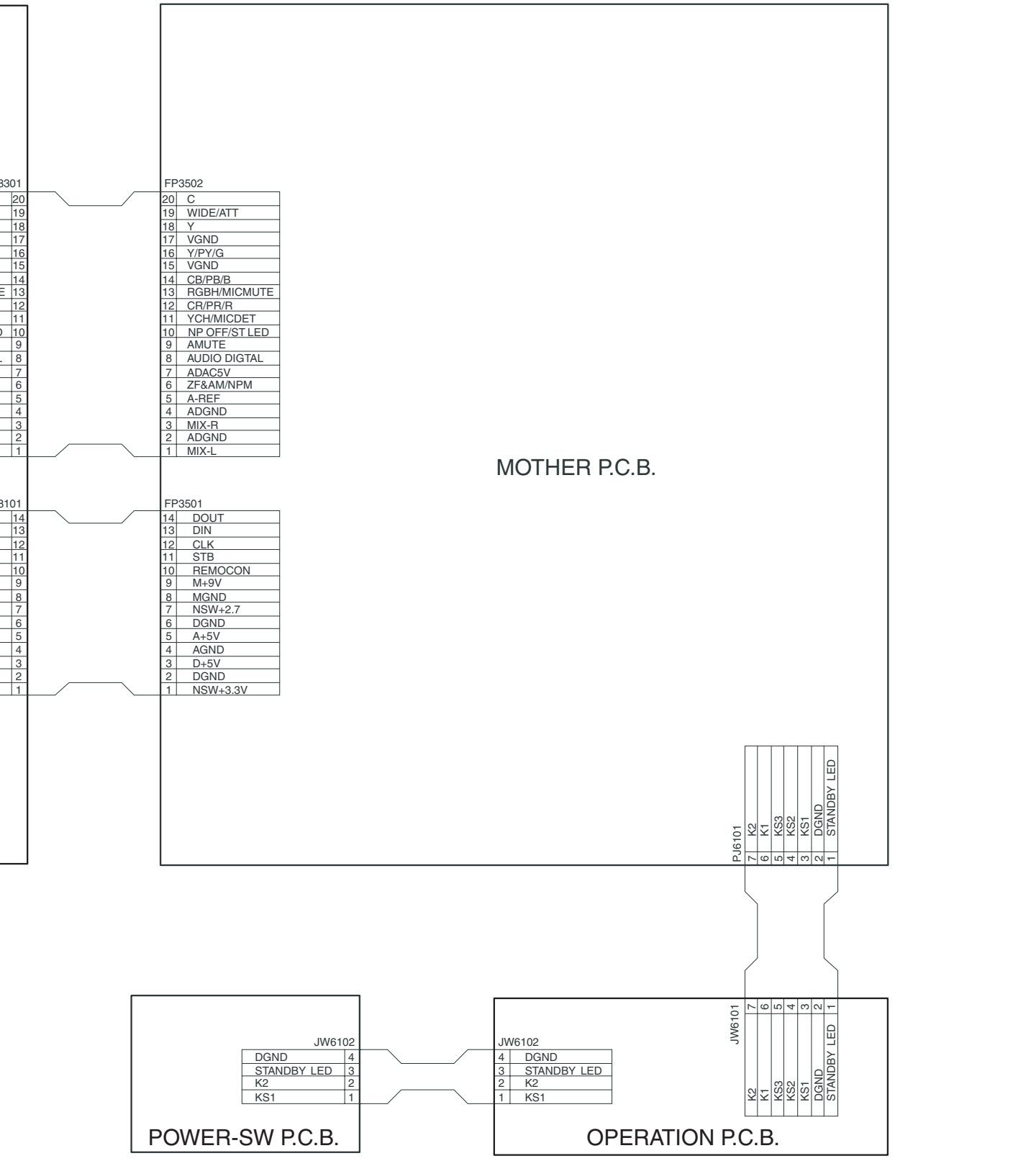
Ref No.	IC8001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PLAY	1	0.9	1	1	0	3.3	1.2	1.3	1	1	1.2	1	1	1.2	0	3.3	0	1.3	0	1.2
STOP	0.8	0.8	0.9	1.1	0	3.3	1	1.3	0.9	0.9	0.7	0.9	0.7	1.2	0	3.3	1	1.9	0	1.2
Ref No.	IC8001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
PLAY	1.2	0.3	1	2.7	1.5	0.9	2.2	1	1.2	0.8	3.3	3.3	0	3.3	3.3	1.9	2.1	1.9	1.4	1.3
STOP	0.3	0.6	3	1.7	1.3	2.6	1.3	1.6	0.6	0	3	0	3.3	3.3	2.4	2.4	0.9	0.9	2.4	1.2
Ref No.	IC8001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
PLAY	2	1.2	0	1.2	3.3	0	3.3	3.3	0	0	0	3.3	3	3.3	3.3	3.3	0	3.3	3.3	0
STOP	2.2	1.1	0	1.2	3.3	0	0	3.3	0	0	0	3.3	3	3.3	3.3	0	0	3.3	3.3	0
Ref No.	IC8001																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
PLAY	3.2	1.6	3.3	0	0	1.8	1.6	0	3.3	3.3	0	0	0	0	0	0	0	0	0	0
STOP	3.3	1.6	0	0	0	1.7	1.6	0	0	3.3	0	3.3	3.3	0	3.3	0	0	0	0	0
Ref No.	IC8001																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
PLAY	0	0	1.2	0	0.9	2.3	0	1.8	0	0.1	0	3.2	2	2	0	1.8	1.6	1.6	1.6	1.6
STOP	0	0	1.2	3.2	0.9	0	0	1.8	0	0.1	1.8	3.2	2.1	2	1.8	1.8	1.6	1.6	1.6	1.6
Ref No.	IC8001																			
MODE	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
PLAY	1.9	1.4	0.2	0.1	0.2	2.1	3.2	0	2.2	1.6	2.5	0	2.3	2.3	2.3	2.3	3.2	0	3.2	0
STOP	1.9	1.4	0	0.1	0	0.1	3.2	0	2.2	1.6	2.2	2.2	0	2.2	2.2	2.2	3.2	0	3.2	0
Ref No.	IC8001																			
MODE	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140
PLAY	1.8	2.5	1.6	1.7	0	1.6	1.7	3.3	0.8	0.9	0.4	3.3	2.2	0	1.1	2.2	0	0.4	0.9	0
STOP	2	1.6	1.6	1.6	0	1.6	1.6	3.3	0.8	0.9	0.4	3.2	2.2	1	1	2.2	0	1.4	0.8	0
Ref No.	IC8001																			
MODE	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160
PLAY	3.3	3.3	0	1.6	0	1.6	3.2	0	0	0	0	1.6	0	3.3	0	1.6	0	1.2	3	3.1
STOP	3.3	3.3	0	1.6	0	1.6	3.2	0	0	0	0	1.6	0	3.3	1.6	1.6	0	1.2	3	3.1
Ref No.	IC8001																			
MODE	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180
PLAY	2.8	3.1	2.9	3	0	3.3	3.1	3	3	3.2	3	3	0	3.3	3.1	3	3.1	2.9	2.9	2.8
STOP	2.9	3.2	2.9	3.1	0	3.3	3.1	3.1	3	3.3	3.1	3	0	3.3	3.2	3	3.1	2.9	2.9	0
Ref No.	IC8001																			
MODE	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200
PLAY	3.2	0	1.6	3.3	1.6	0	1.2	3.2	0	3.2	3.2	0	0	0	0	3.3	3.3	0	0	1.5
STOP	3.2	0	1.6	3.2	1.6	0	1.2	3.2	3.2	3.1	3.2	0	2.4	0	0	3.3	1.6	0	0	1.6
Ref No.	IC8001																			
MODE	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216				
PLAY	0	1.8	0	0	3.2	0	0.2	1.4	1.5	0	1.2	1.4	2.6	2.6	1.5	1.4				
STOP	0.1	0	0.3	0	3.3	1.6	0.3	1.5	0.6	0	1.2	1.6	2.7	2.6	1.2	1.1				
Ref No.	IC8051(GN)																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PLAY	3.3	3.1	3.3	3.1	3	0	0.8	3.2	3.3	3.3	3.3	0	0	3.3	2.8	3.2	0	3.3	3.3	3.3
STOP	3.3	3.1	3.3	3.2	3.1	0	3.1	3.3	3.3	3	3	0	2.9	3.3	2.9	3.2	3.2	3.2	3.1	2.7
Ref No.	IC8051(GN)																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
PLAY	0.2	0	0.1	0.3	0.3	1.5	3.3	0	1.4	1.7	1.8	1.6	0	0	0	0	3.3	1.6	2.9	0
STOP	1.5	0	0	0.3	0.3	1.6	3.3	0	1.6	1.6	1.6	1.5	0	0	0	0	3.3	1.6	3	0
Ref No.	IC8051(GN)																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54						
PLAY	0	3.1	3.3	3.1	3	0	3	3.1	3.2	2.8	2.8	0	3	0						
STOP	0	3.1	3.3	3.2	3.1	0	3	3.3	3.3	0	2.9	0	3	0						
Ref No.	IC8051(PX)																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PLAY	3.3	3.2	3.2	0	3.1	3.1	3.3	3.2	0	0	3.3	3.3	0	3.3	3.3	3.3	3.3	3.3	0.2	0
STOP	3.3	3.2	3.2	0	3.1	3.1	3.3	3.3	3	0	3	2.9	3.3	2.9	3.3	3.3	0	3.2	1.6	0
Ref No.	IC8051(PX)																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
PLAY	0	0	0	0.2	3.3	0	0.2	0.4	0.2	0.5	0	0	0	3.3	1.6	3.3	0	3.3	3.3	3.3
STOP	0	0	0	1.5	3.3	0	1.6	1.6	1.6	1.6	0	0	0	3.3	1.6	2.9	0	3.3	3.2	3.2
Ref No.	IC8051(PX)											IC8151								
MODE	41	42	43	44	45	46	47	48	49	50		1	2	3	4	5				
PLAY	0	3.3	3.3	3.3	3.3	3.3	0	3.3	3.3	0		2.8	2.8	1.2	1.3	0				
STOP	0	3.1	0	3.3	3.3	2.9	0	2.9	3	0		2.8	2.8	1.2	1.3	0				
Ref No.	IC8251																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PLAY	0	1.6	3.3	3.2	1.7	1.6	1.6	9	4.3	4.3	4.3	4.3	3.5	5.1	2.7	2.4	2.6	2.5	0	9
STOP	0	1.6	0	0	1.6	0	1.6	9	4.3	4.3	4.3	0	3.4	3.4	2.6	2.6	2.6	2.6	0	0
Ref No.	IC8251									IC8601							IC8606			
MODE	21	22	23	24	25	26	27	28		1	2	3	4	5		1	2	3	4	5
PLAY	5	1.6	1.7	0	3.1	3.1	2.8	1.6		1.6	0	0	0	0		-3	0	2.4	1.8	1.8
STOP	5.1	1.6	1.6	0	2.4	2.4	1.6	1.6		3.3	0	0	0	0		0.1	0	2	1.1	0.3
Ref No.	IC8651																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PLAY	1	2.7	0	0	2.2	1	3.2	3.3	0	0	3.3	3.3	3.3	3.3	1.3	3.3	3.3	3.3	3.3	0
STOP	3.3	3	1.6	1.3	2.6	1.2	1.5	0.6	0	0	3.3	3.3	3.3	3.3	0	2.2	1.6	2.3	2.4	2.4
Ref No.	IC8651																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
PLAY	3.3	0	0	3.3	1.5	2.6	0	3.3	0	1	1.1	0.9	1.1	1.2	1.3	1.4	0	1.2	0	1.4
STOP	1.6	3.3	3.3	3.3	2.8	2.4	0	2.6	0.6	0.6	0.8	0.9	0.9	1.2	1.2	1.3	3.3	1.1	1.2	1
Ref No.	IC8651									Q8251				Q8252				Q8421		
MODE	41	42	43	44	45	46	47	48		B	C	E		B	C	E		B	C	E
PLAY	1.2	1.3	1.3	1.6	1.4	0	3.3	0.3		3.2	0	0		0	0	0.6		2.8	0	0
STOP	0.8	1.2	1	1	1.9	0	3.3	0.3		3.2	0	0		0	0	0.6		2.8	0	0
Ref No.	Q8531				Q8532				Q8551				Q8552				Q8561			
MODE	B	C	E		B	C	E		B	C	E		B	C	E		B	C	E	
PLAY	0	0	3.3		0.2	0	0		2.1	0	0		0	0	0.1		3.6	1.5	2.1	
STOP	0	0	3.3		0	0	5		5	0	0		0	5	5		5	0	0	

14 INTERCONNECTION SCHEMATIC DIAGRAM & SCHEMATIC D

14.1. INTERCONNECTION SCHEMATIC DIAGRAM



IATIC DIAGRAM NOTES



DVD-S32EB/GN/PX
INTERCONNECTION SCHEMATIC DIAGRAM

5 6 7 8 9

14.2. SCHEMATIC DIAGRAM NOTES

This schematic diagram may be modified at any time with the development of new technology.

Important safety notice:

Components identified by ⚠ mark have special characteristics important for safety.

Furthermore, special parts which have purpose of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacture´s specified parts shownin theparts list.

Important safety notice:

There are special components used in this equipment which are important for safety.

These parts are marked by ⚠ in the schematic diagrams. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire, or other hazards. Do not modify the original designwithout permission of manufacturer.

Caution!

IC and LSI are sensitive to static electricity.

Secondary trouble can be prevented by taking care during repair.

Cover the parts boxes made of plastics with aluminum foil.

Ground the soldering iron.

Put a conductive mat on the work table.

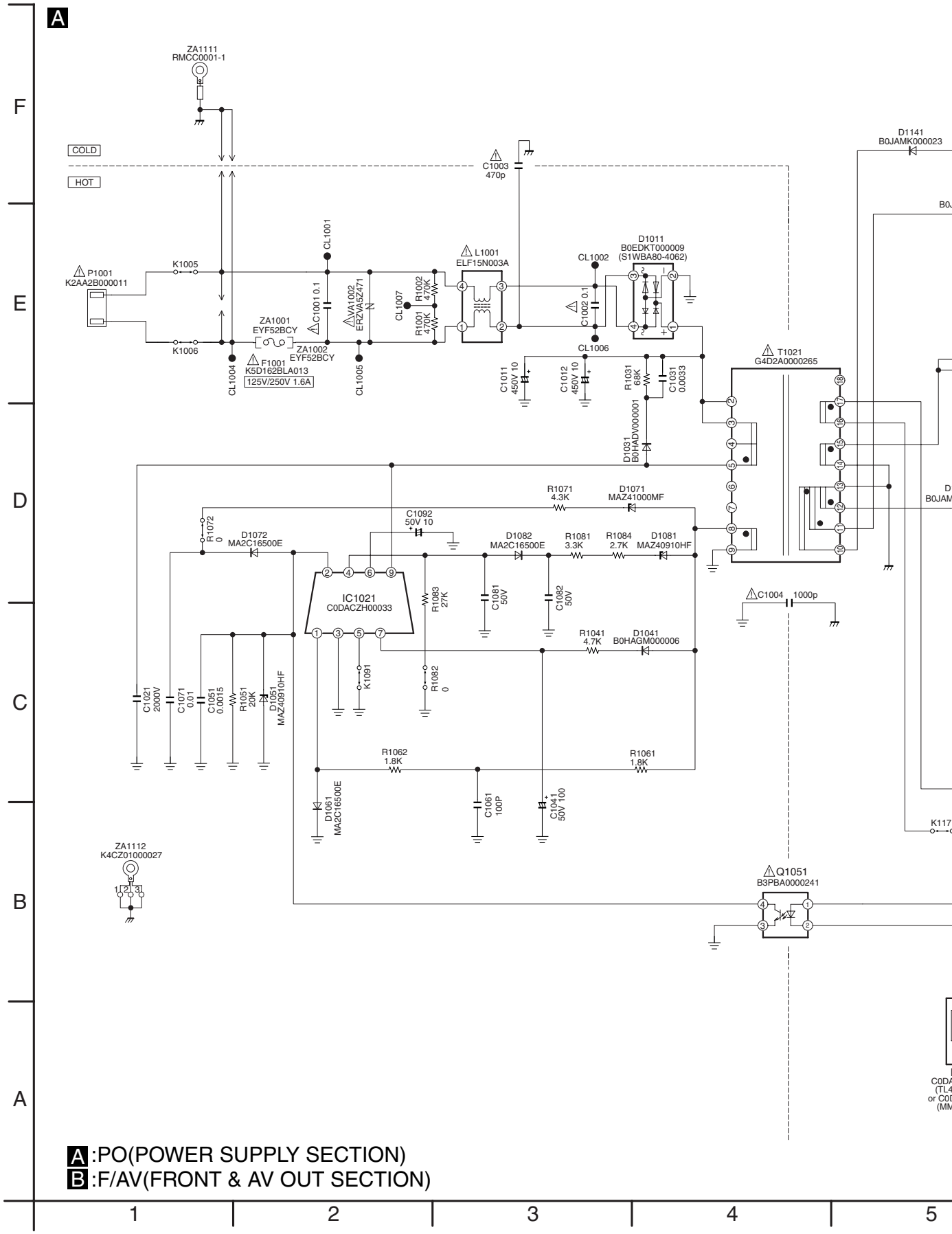
Do not touch the legs of IC or LSI with the fingers directly.

se
in

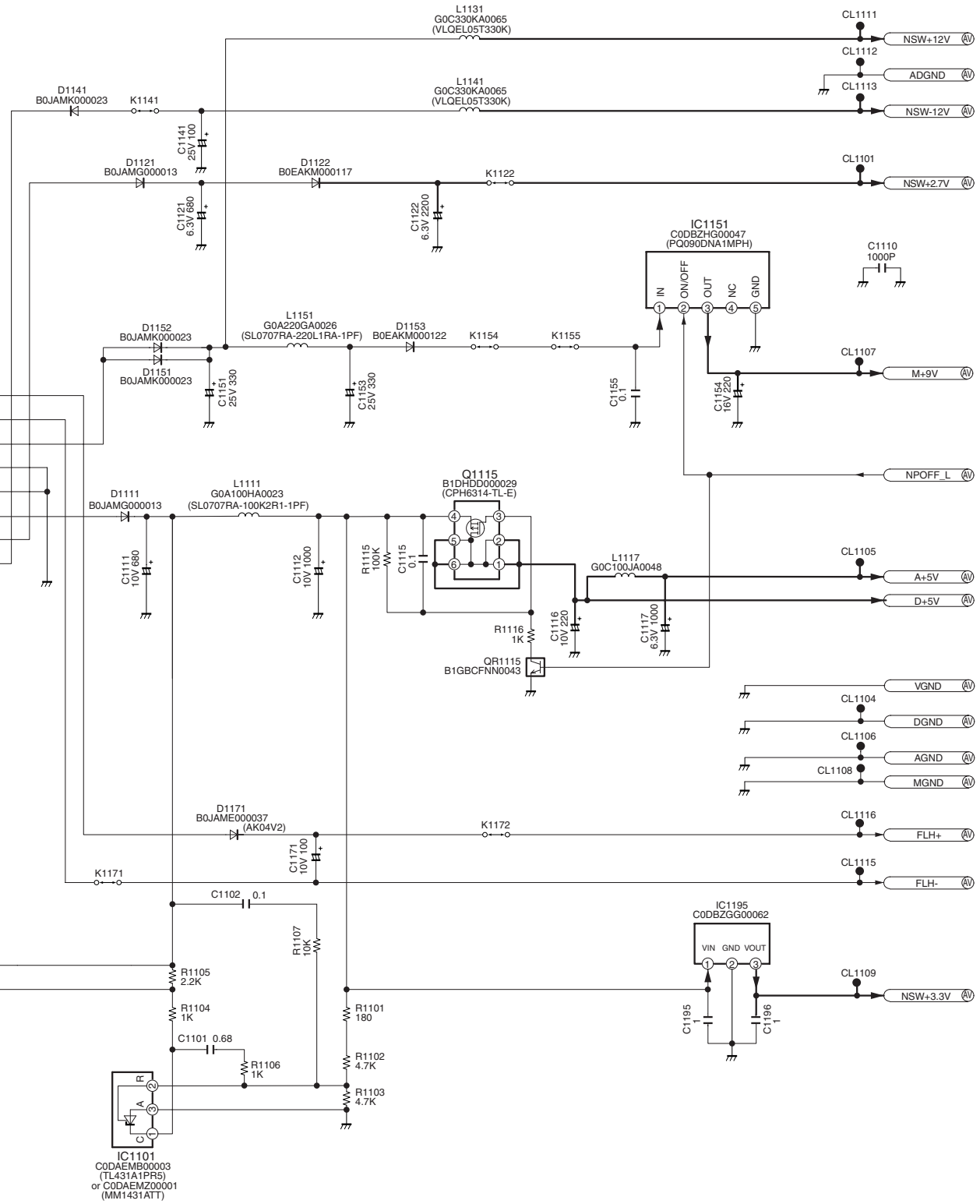
ith
of

15 SCHEMATIC DIAGRAM

15.1. POWER SUPPLY SECTION (MOTHER P.C.B. (1 / 2)) SCHEMATIC DIAGRAM



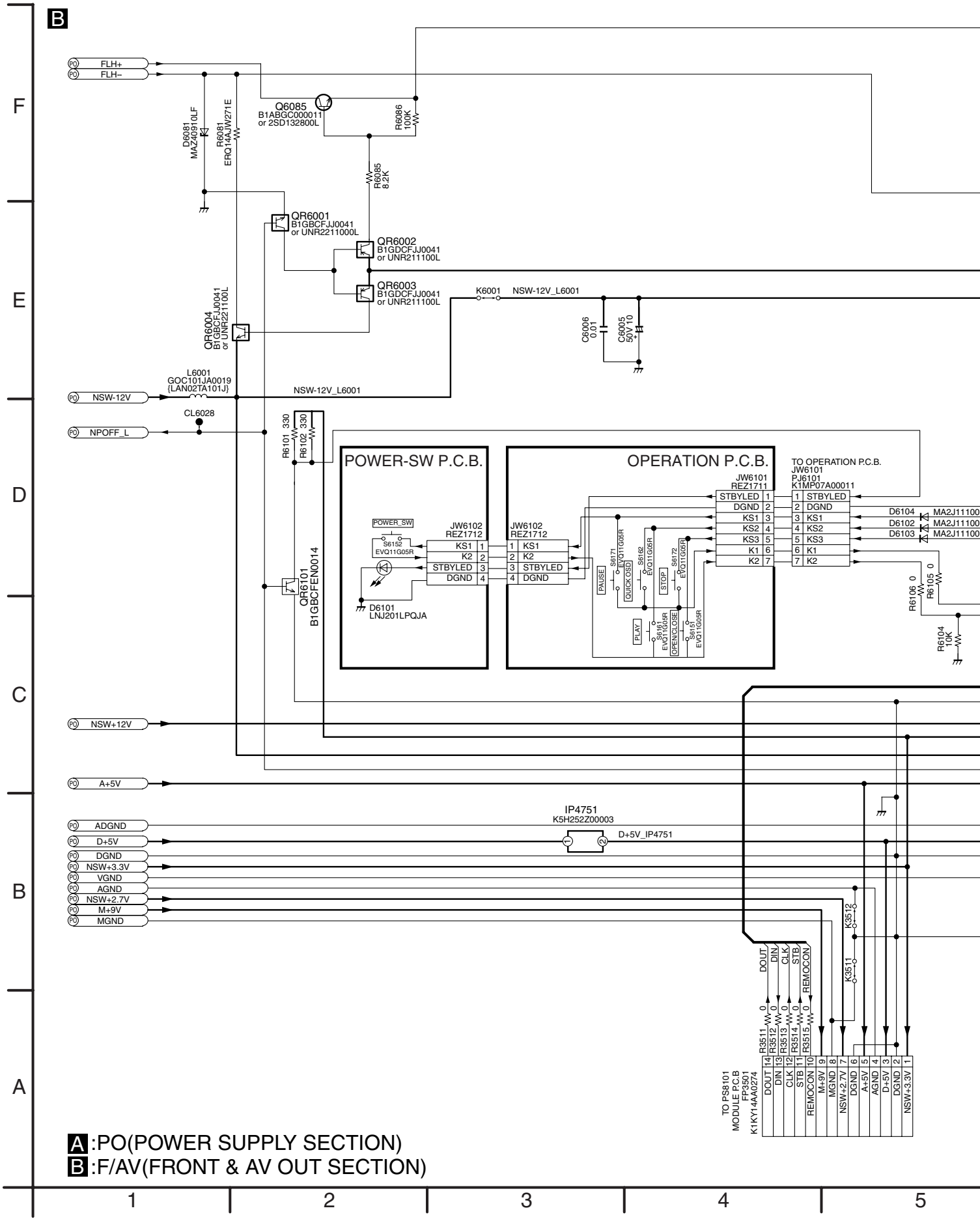
IAGRAM



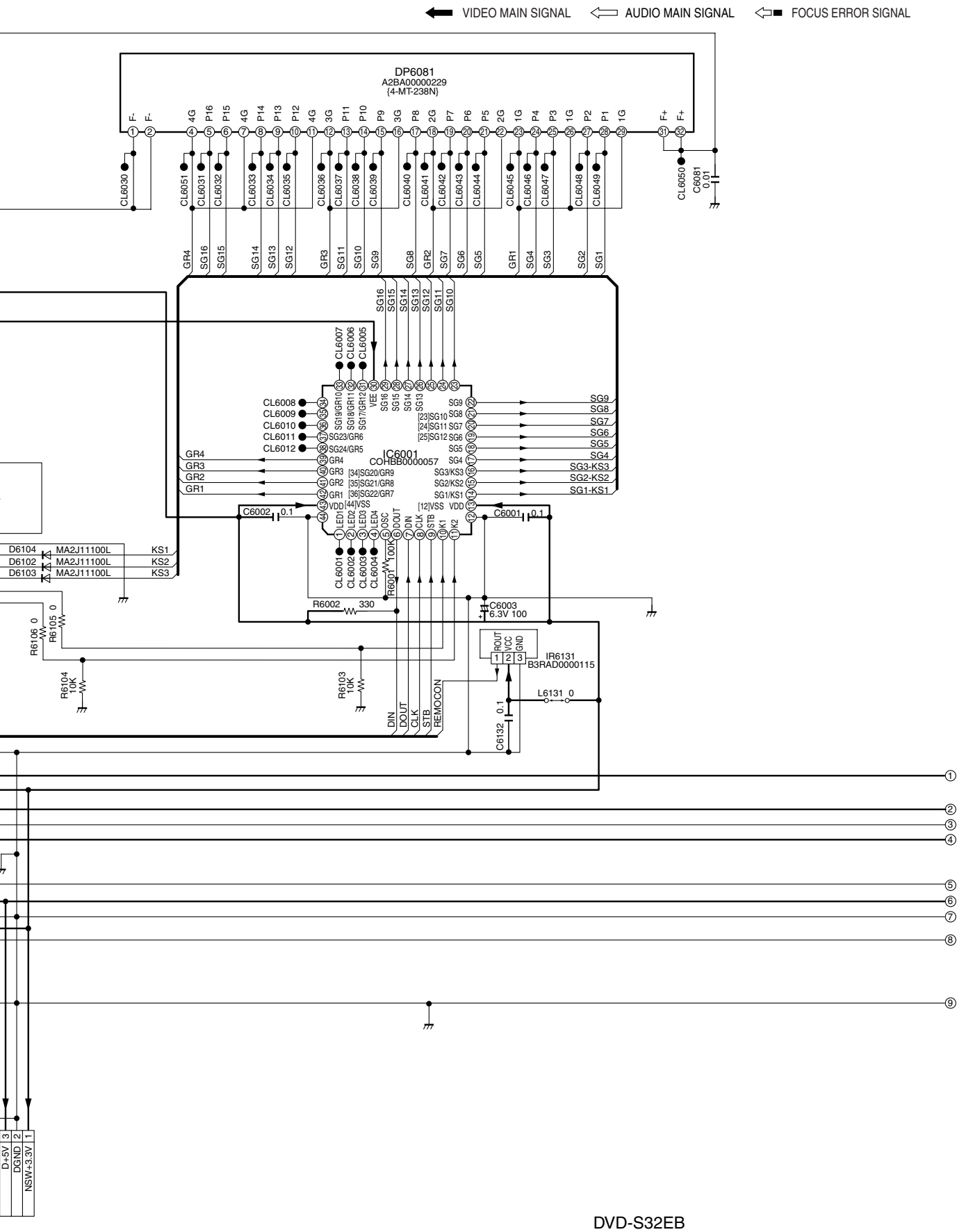
DVD-S32EB/GN/PX
POWER SUPPLY SECTION(MOTHER P.C.B.(1/2))
SCHEMATIC DIAGRAM

5	6	7	8	9

15.2. FRONT & AV OUT SECTION (MOTHER P.C.B. (2 / 2)) SCHEMATIC DIAGRAM (D

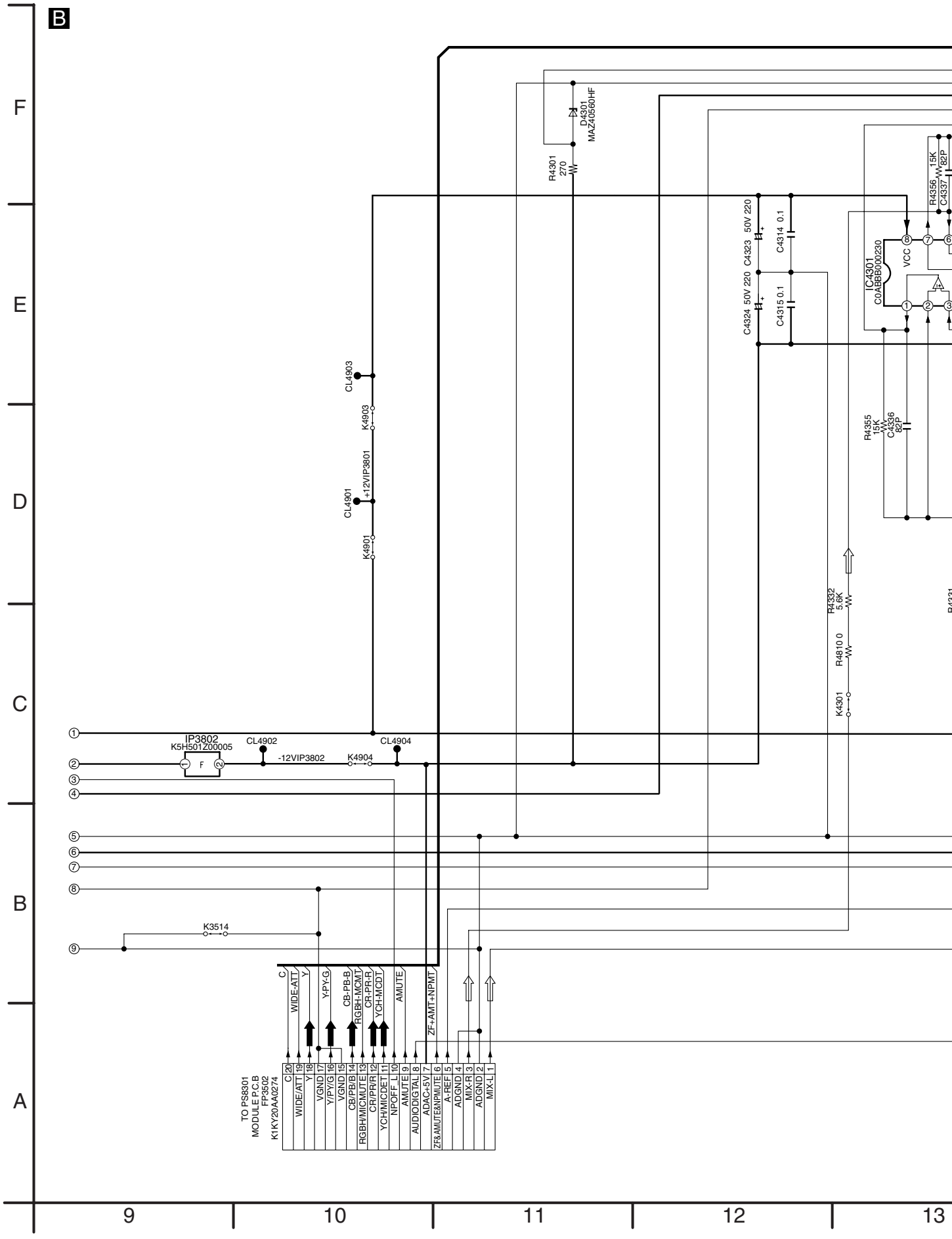


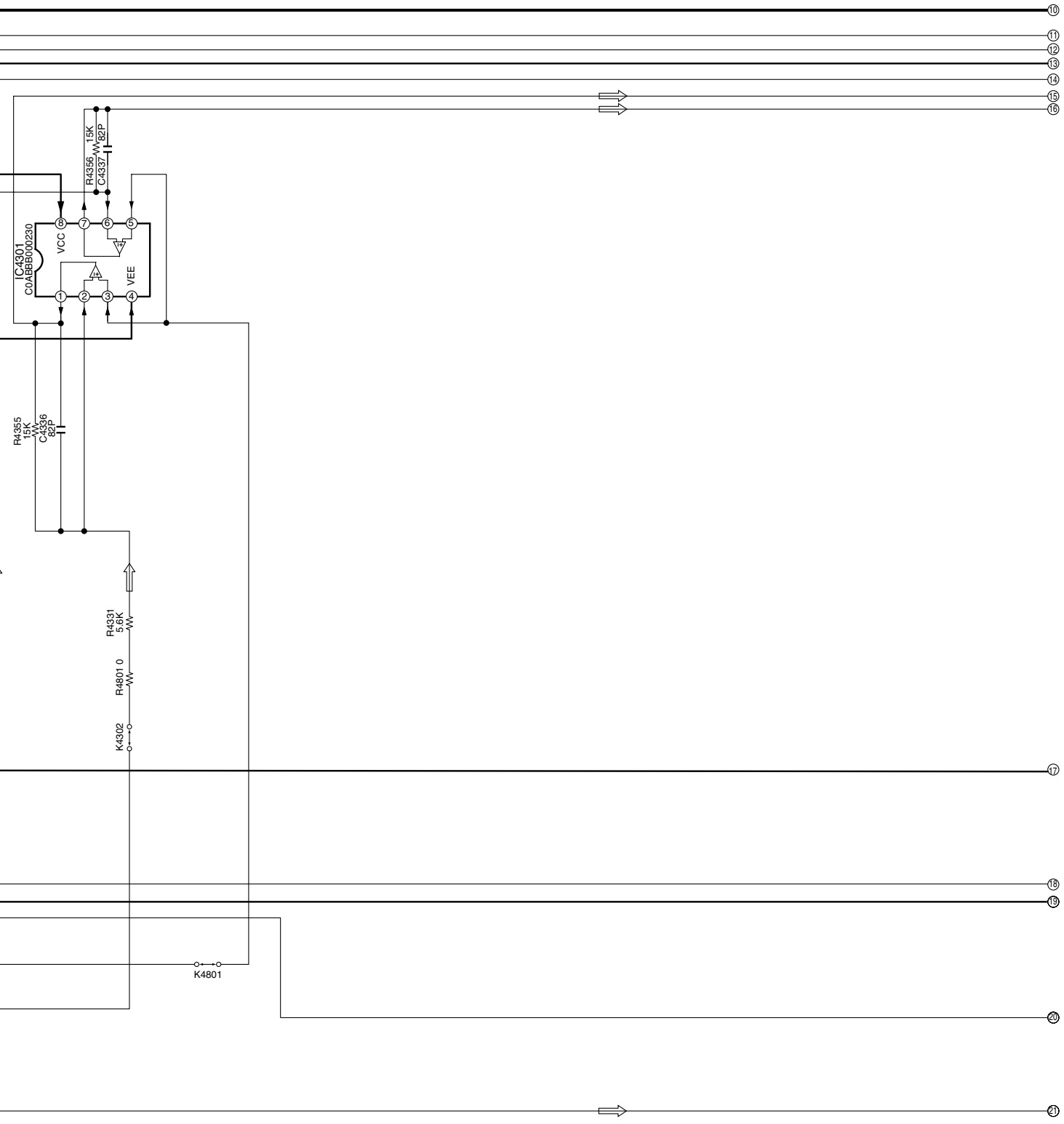
GRAM (DVD-S32EB)



DVD-S32EB
FRONT & AV OUT SECTION (MOTHER P.C.B (2/2))
SCHEMATIC DIAGRAM

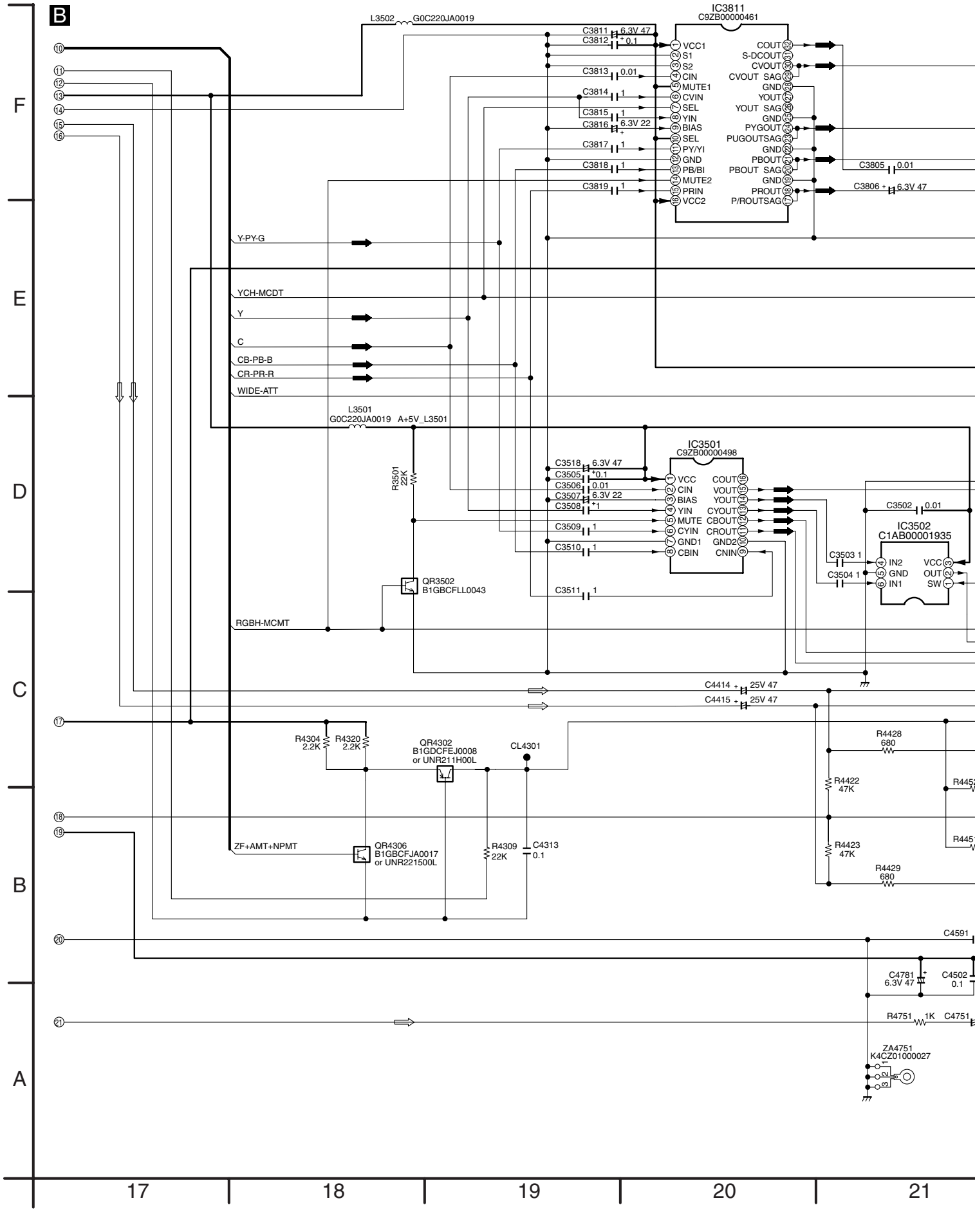
5 | 6 | 7 | 8 | 9

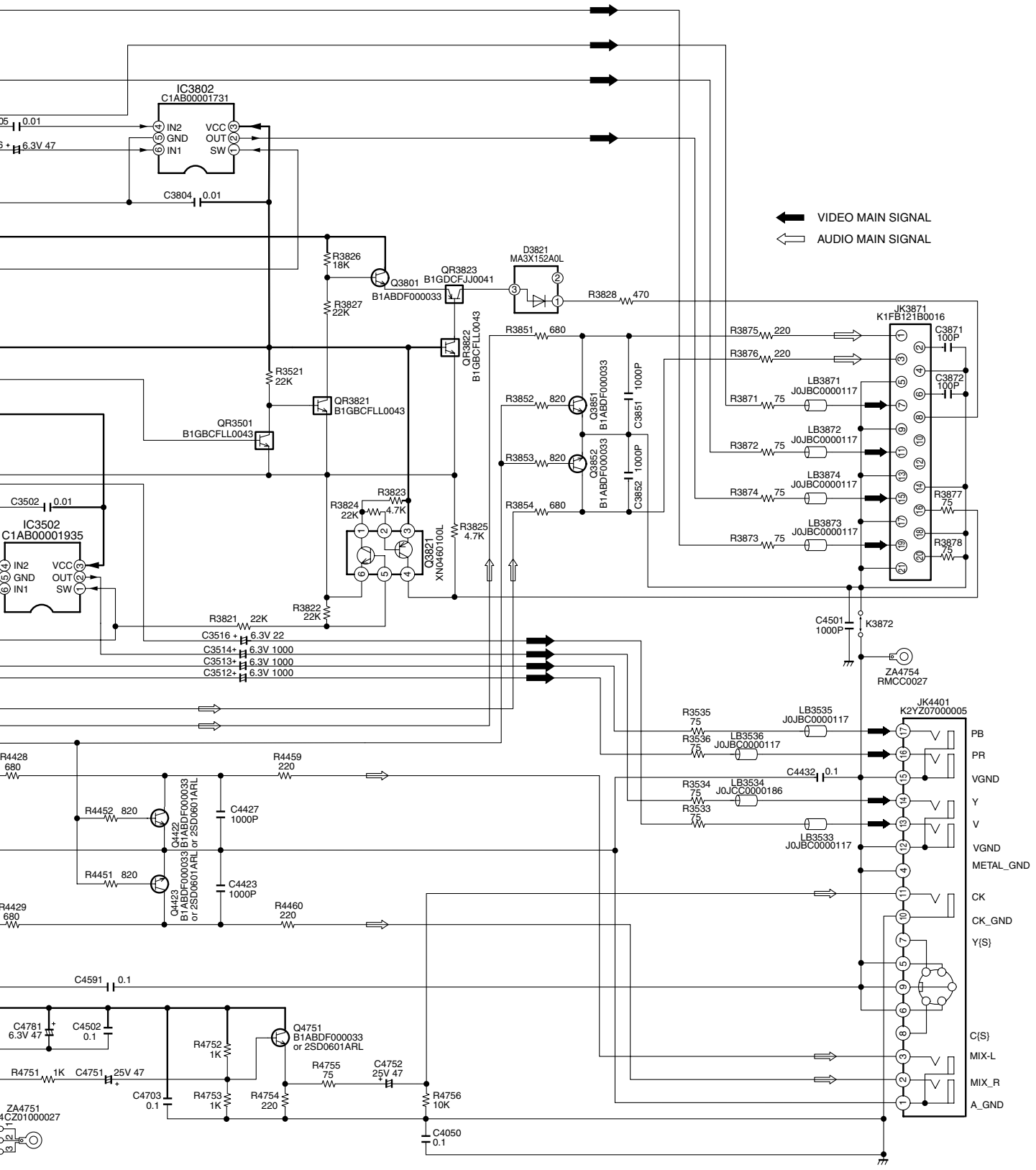

B
F
E
D
C
B
A
9
10
11
12
13
D4301
MAZ4056OHF
R4301
270
C4323 50V 220
C4324 50V 220
C4314 0.1
C4315 0.1
IC4301
C0ABBB000230
VCC
R4356 15K
C4337 82P
R4355 15K
C4336 82P
R4332 5.6K
R4810 0
K4301
CL4903
K4903
CL4901
+12VIP3801
K4901
IP3802
K5H501Z00005
CL4902
-12VIP3802
K4904
CL4904
K3514
TO PS8301
MODULE P.C.B
FP3502
K1KY20AA0274
C 20
WIDE-ATT 19
Y 18
VGND 17
Y/PY/G 16
VGND 15
CB/PB 14
RGBH/MICMUTE 13
CR/PR/R 12
YCH/MICDET 11
NPOFF_L 10
AMUTE 9
AUDIODIGITAL 8
ADAC+5V 7
ZF&AMUTE&NPMUTE 6
A-REF 5
ADGND 4
MIX-R 3
ADGND 2
MIX-L 1
C
WIDE-ATT
Y
Y-PY-G
CB-PB-B
RGBH-MCMT
CR-PR-R
YCH-MCDT
AMUTE
ZF+AMT+NPMT



DVD-S32EB
FRONT & AV OUT SECTION (MOTHER P.C.B (2/2))
SCHEMATIC DIAGRAM

13 | 14 | 15 | 16 | 17


B
L3502 G0C220JA0019
IC3811
C9ZB00000461
C3811 6.3V 47
C3812 0.1
C3813 0.01
C3814 1
C3815 1
C3816 6.3V 22
C3817 1
C3818 1
C3819 1
VCC1
S1
S2
CIN
MUTE1
CVIN
SEL
YIN
BIAS
SEL
PY/YI
GND
PB/BI
MUTE2
PRIN
VCC2
COUT
S-DCOUT
CVOUT
CVOUT SAG
GND
YOUT
YOUT SAG
GND
PYGOUT
PUGOUTSAG
GND
PBOUT
PBOUT SAG
GND
PROUT
P/ROUTSAG
C3805 0.01
C3806 6.3V 47
Y-PY-G
YCH-MCDT
Y
C
CB-PB-B
CR-PR-R
WIDE-ATT
L3501
G0C220JA0019
A+5V_L3501
R3501
22K
IC3501
C9ZB00000498
C3518 6.3V 47
C3505 0.1
C3506 0.01
C3507 6.3V 22
C3508 1
C3509 1
C3510 1
C3511 1
VCC
CIN
BIAS
YIN
MUTE
CYIN
GND1
CBIN
COUT
VOUT
YOUT
CYOUT
CBOUT
CROUT
GND2
CNIN
C3502 0.01
IC3502
C1AB00001935
C3503 1
C3504 1
IN2
GND
IN1
VCC
OUT
SW
QR3502
B1GBCFLL0043
RGBH-MCMT
C4414 25V 47
C4415 25V 47
R4304
2.2K
R4320
2.2K
QR4302
B1GDCFEJ0008
or UNR211H00L
CL4301
R4428
680
R4422
47K
R4423
47K
R4429
680
ZF+AMT+NPMT
QR4306
B1GBCFJA0017
or UNR221500L
R4309
22K
C4313
0.1
C4591
C4781
6.3V 47
C4502
0.1
R4751
1K
C4751
ZA4751
K4CZ01000027
F
E
D
C
B
A
17
18
19
20
21



DVD-S32EB
FRONT & AV OUT SECTION (MOTHER P.C.B (2/2))
SCHEMATIC DIAGRAM

21	22	23	24	25

15.3. FRONT & AV OUT SECTION (MOTHER P.C.B. (2 / 2)) SCHEMATIC DIAGRAM

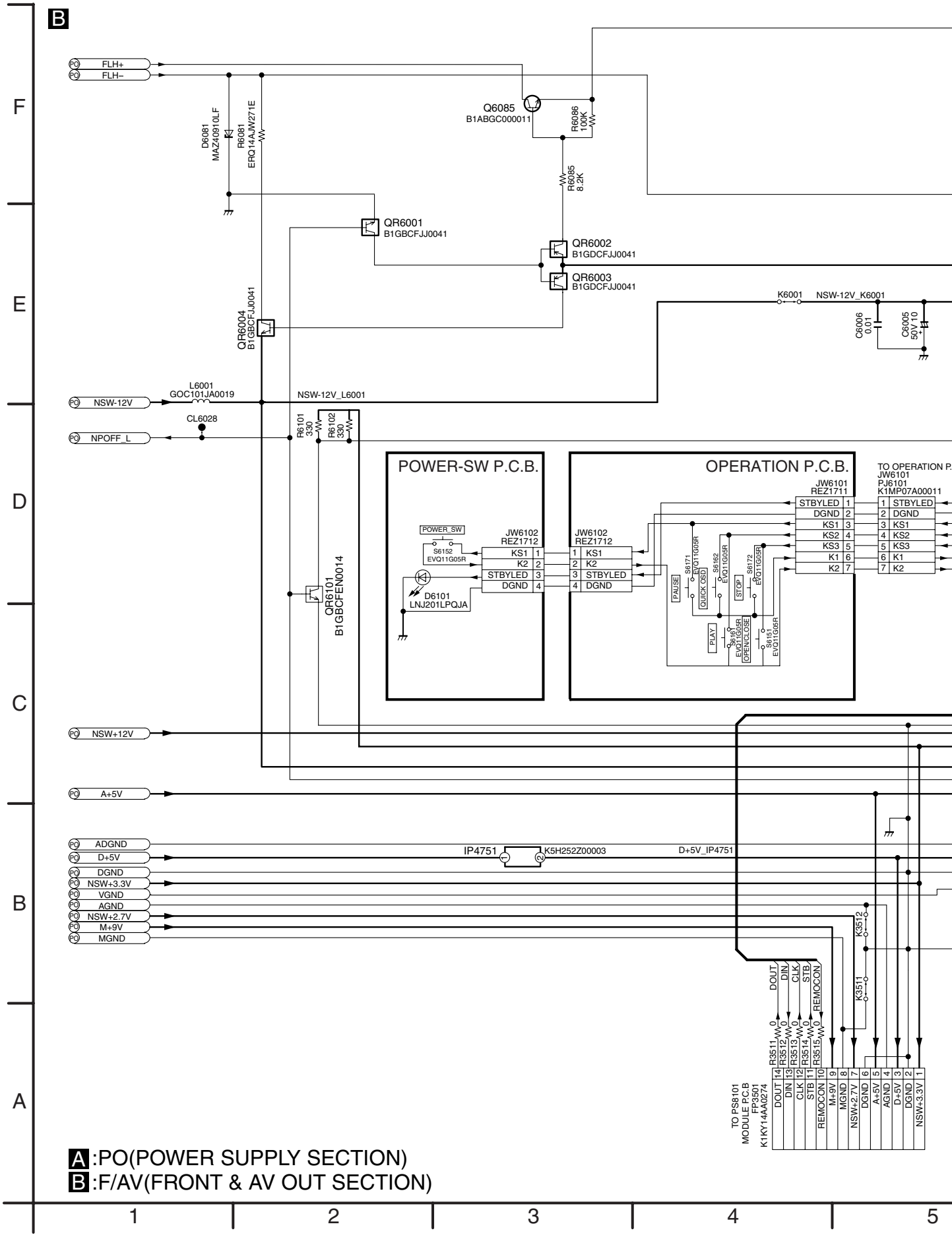
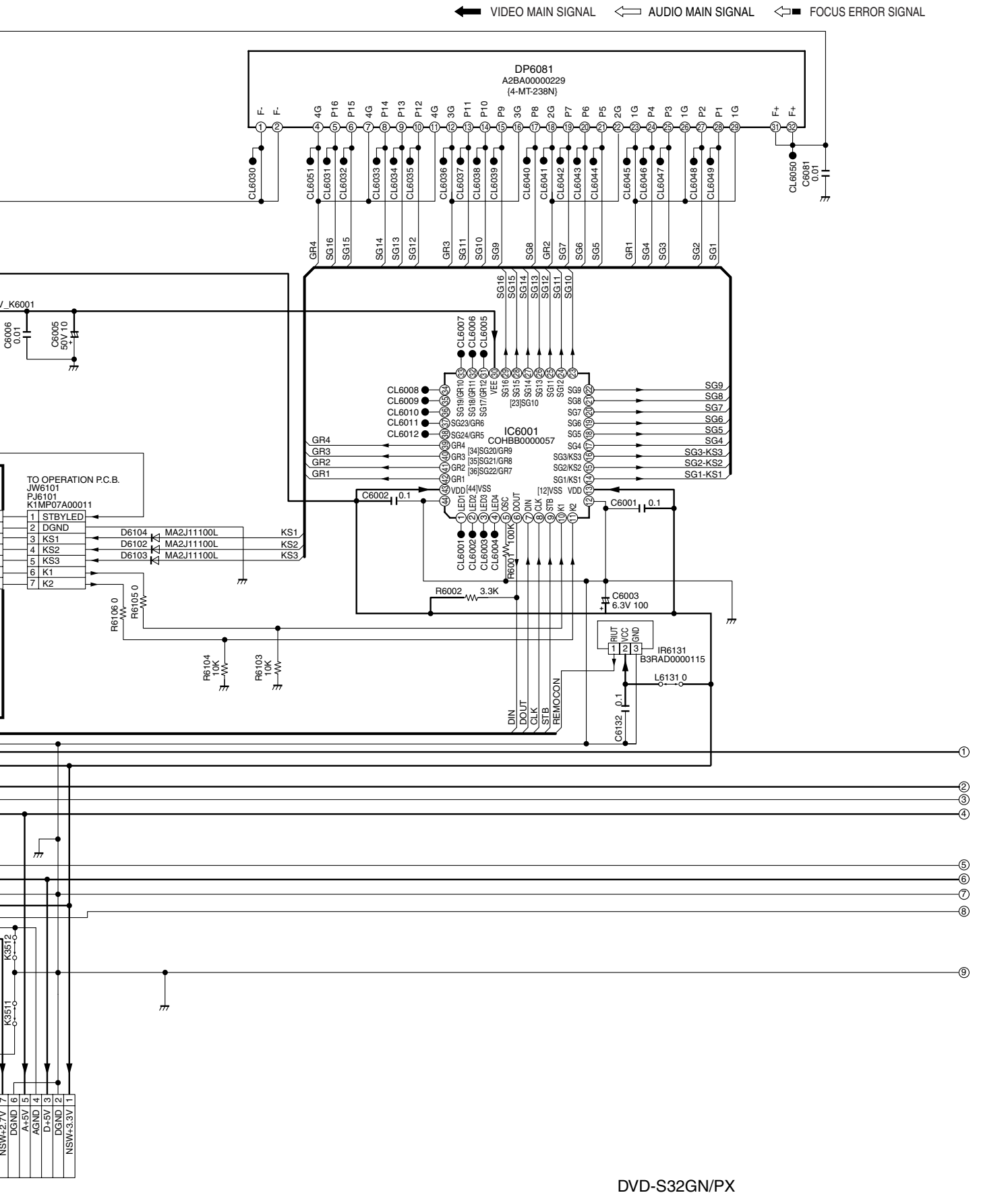
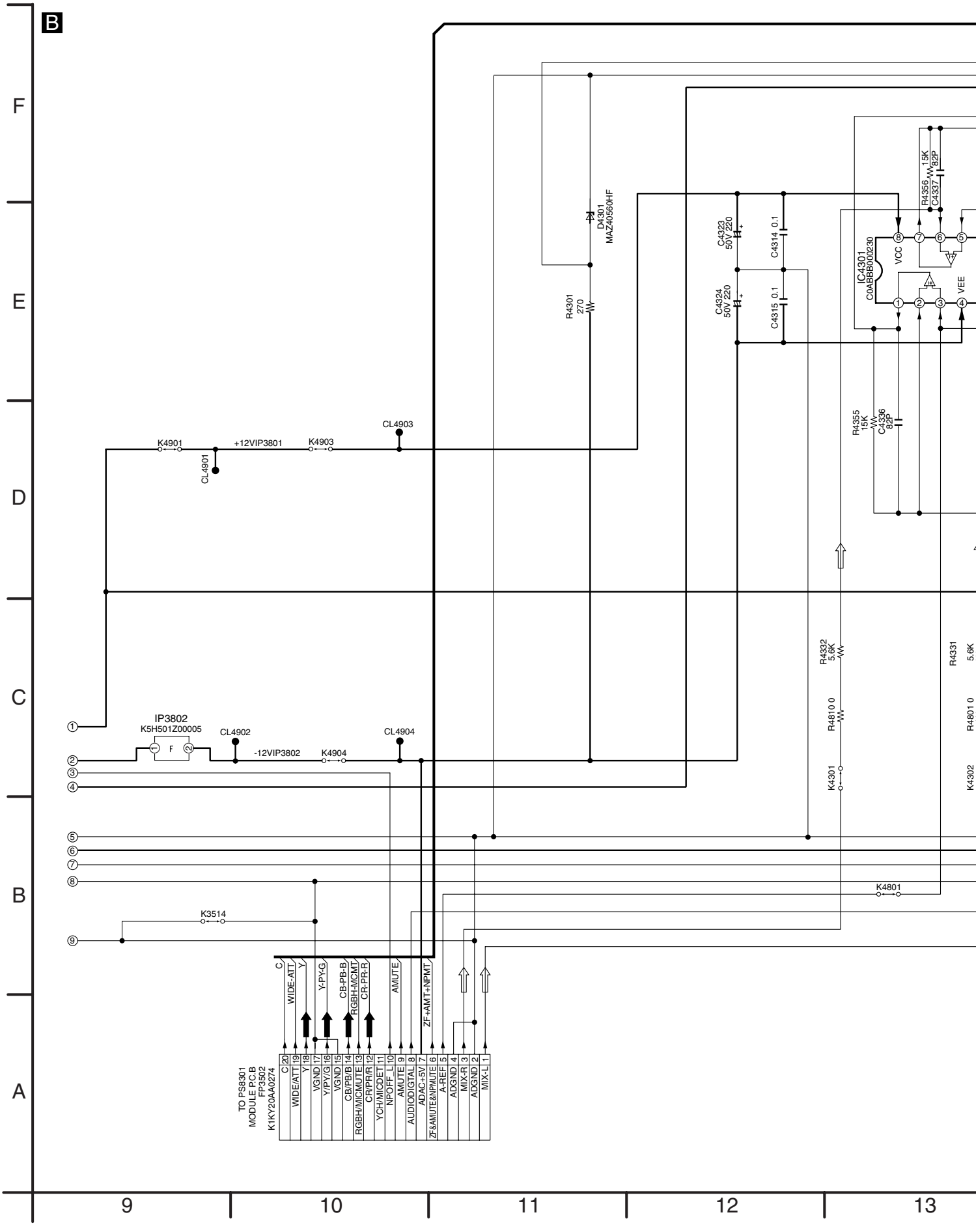


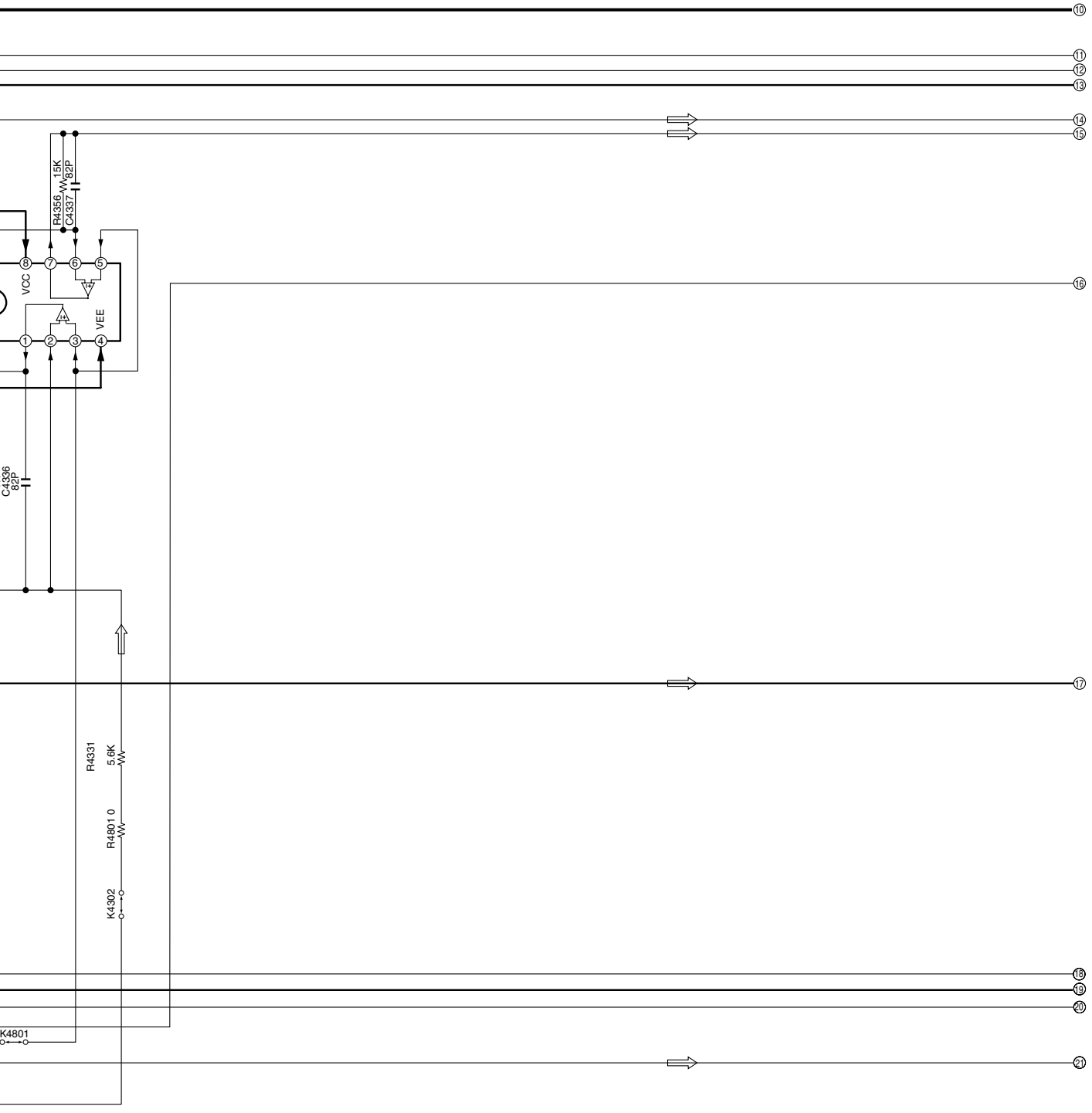
DIAGRAM (DVD-S32GN/PX)



DVD-S32GN/PX
FRONT & AV OUT SECTION (MOTHER P.C.B (2/2))
SCHEMATIC DIAGRAM

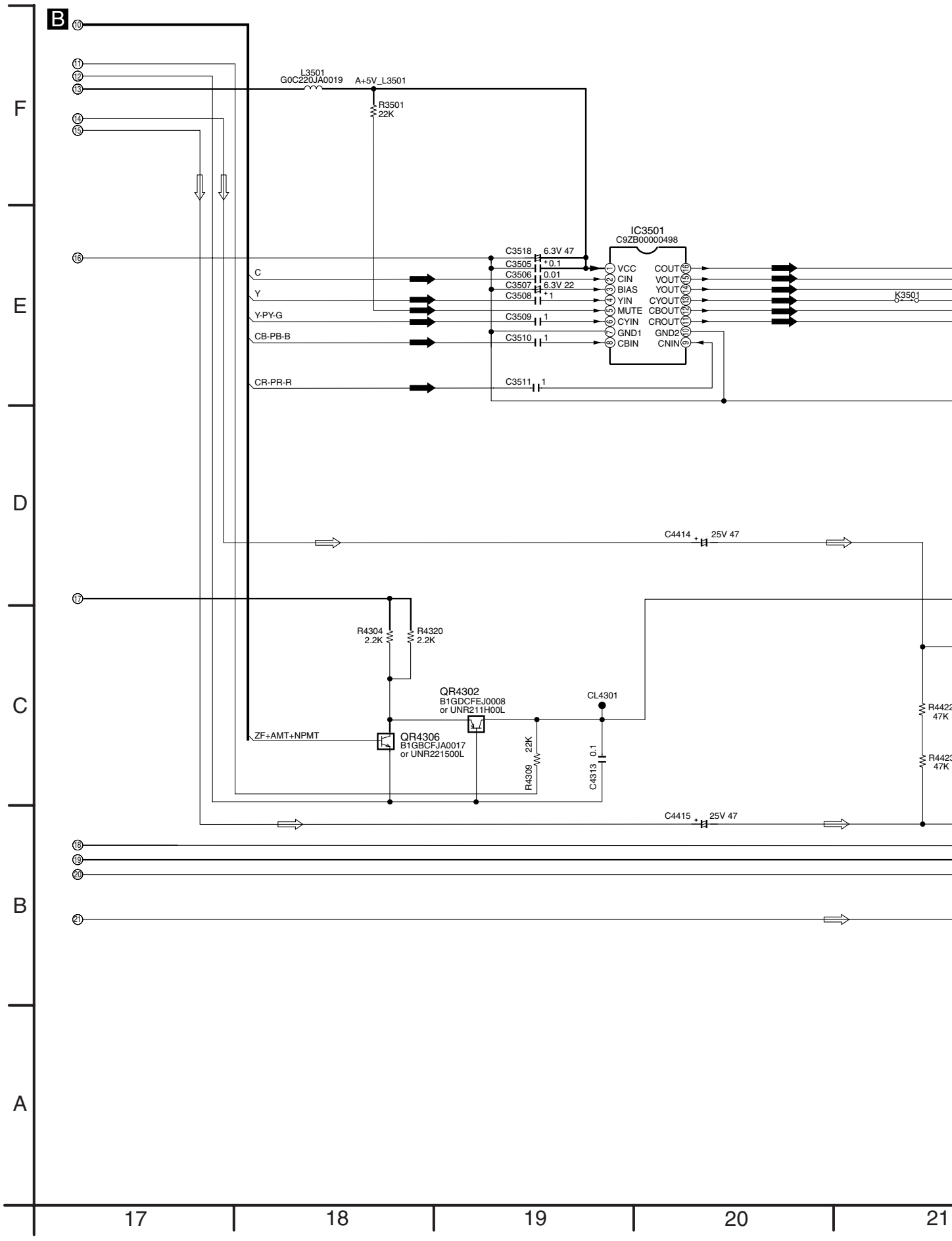
5 | 6 | 7 | 8 | 9

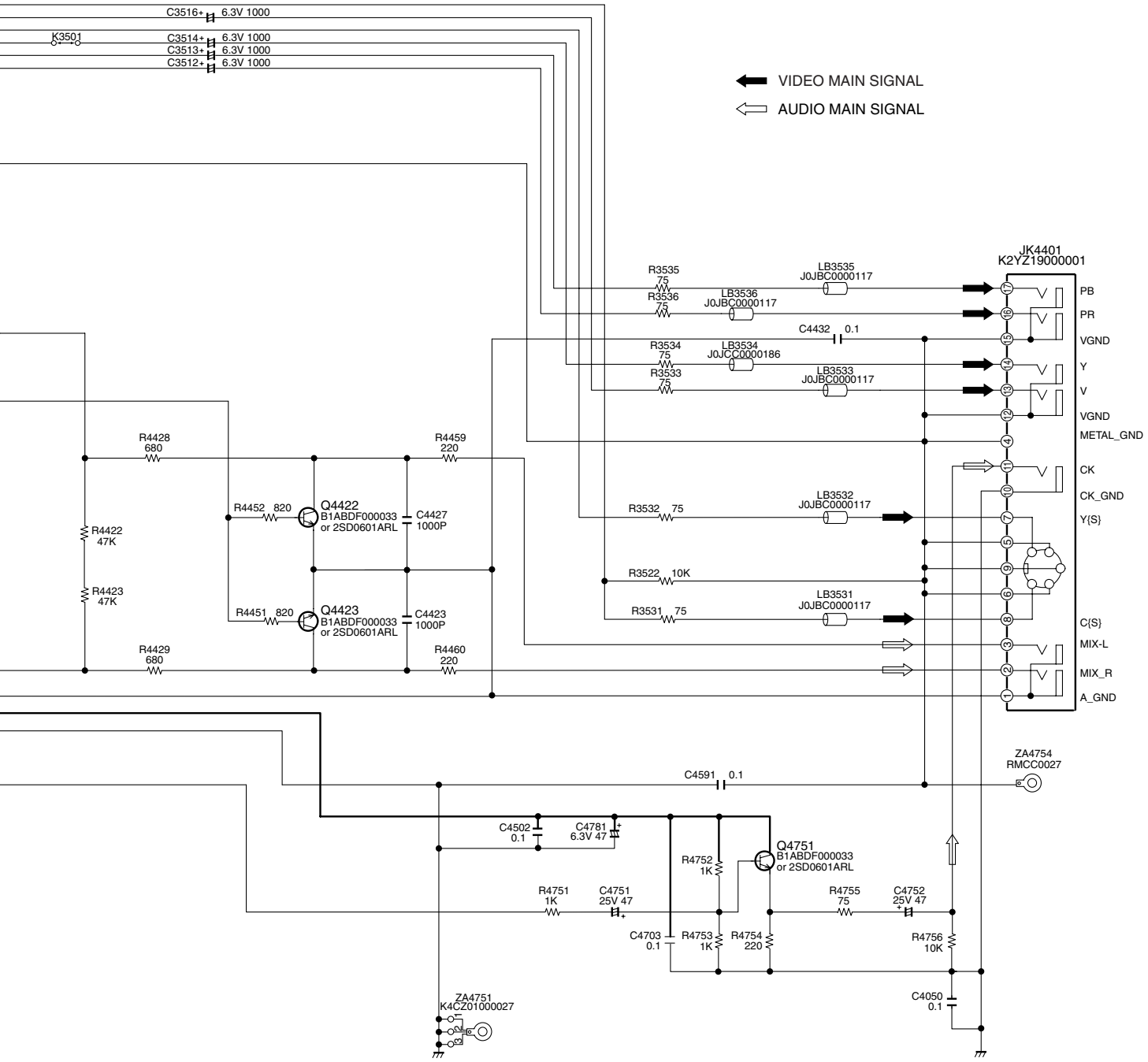

B
F
E
D
C
B
A
9
10
11
12
13
D4301
MAZ40560HF
R4301
270
C4323
50V 220
C4314 0.1
C4324
50V 220
C4315 0.1
IC4301
C0ABBB000230
VCC
VEE
R4356 15K
C4337 82P
R4355
15K
C4336
82P
CL4903
K4901
+12VIP3801
K4903
CL4901
IP3802
K5H501Z00005
CL4902
-12VIP3802
K4904
CL4904
R4332
5.6K
R4810 0
K4301
R4331
5.6K
R4801 0
K4302
K4801
K3514
TO PS8301
MODULE P.C.B
FP3502
K1KY20AA0274
C
WIDE-ATT
Y
Y-PY-G
CB-PB-B
RGBH-MCMT
CR-PR-R
AMUTE
ZF+AMT+NPMT
VGND
CB/PB/B
RGBH/MICMUTE
CR/PR/R
YCH/MICDET
NPOFF_L
AUDIODIGTAL
ADAC+5V
ZF&AMUTE&NPMUTE
A-REF
ADGND
MIX-R
MIX-L



DVD-S32GN/PX
FRONT & AV OUT SECTION (MOTHER P.C.B (2/2))
SCHEMATIC DIAGRAM

13	14	15	16	17

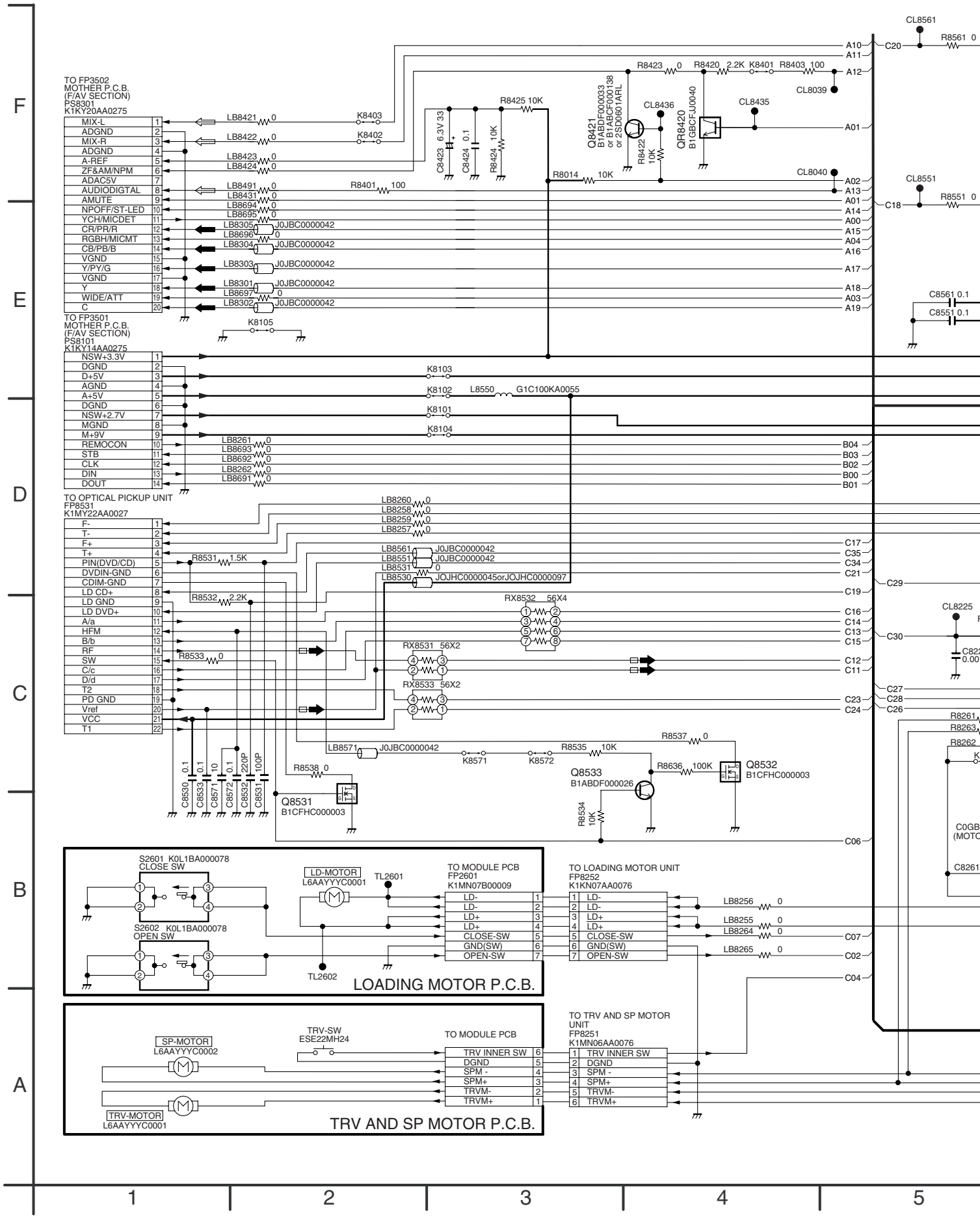

B
L3501
G0C220JA0019
A+5V_L3501
R3501
22K
IC3501
C9ZB00000498
C3518 6.3V 47
C3505 0.1
C3506 0.01
C3507 6.3V 22
C3508 1
C3509 1
C3510 1
C3511 1
VCC
CIN
BIAS
YIN
MUTE
CYIN
GND1
CBIN
COUT
VOUT
YOUT
CYOUT
CBOUT
CROUT
GND2
CNIN
C
Y
Y-PY-G
CB-PB-B
CR-PR-R
K3501
C4414 25V 47
C4415 25V 47
R4304
2.2K
R4320
2.2K
QR4302
B1GDCFEJ0008
or UNR211H00L
QR4306
B1GBCFJA0017
or UNR221500L
ZF+AMT+NPMT
R4309 22K
C4313 0.1
CL4301
R4422
47K
R4423
47K
F
E
D
C
B
A
17
18
19
20
21

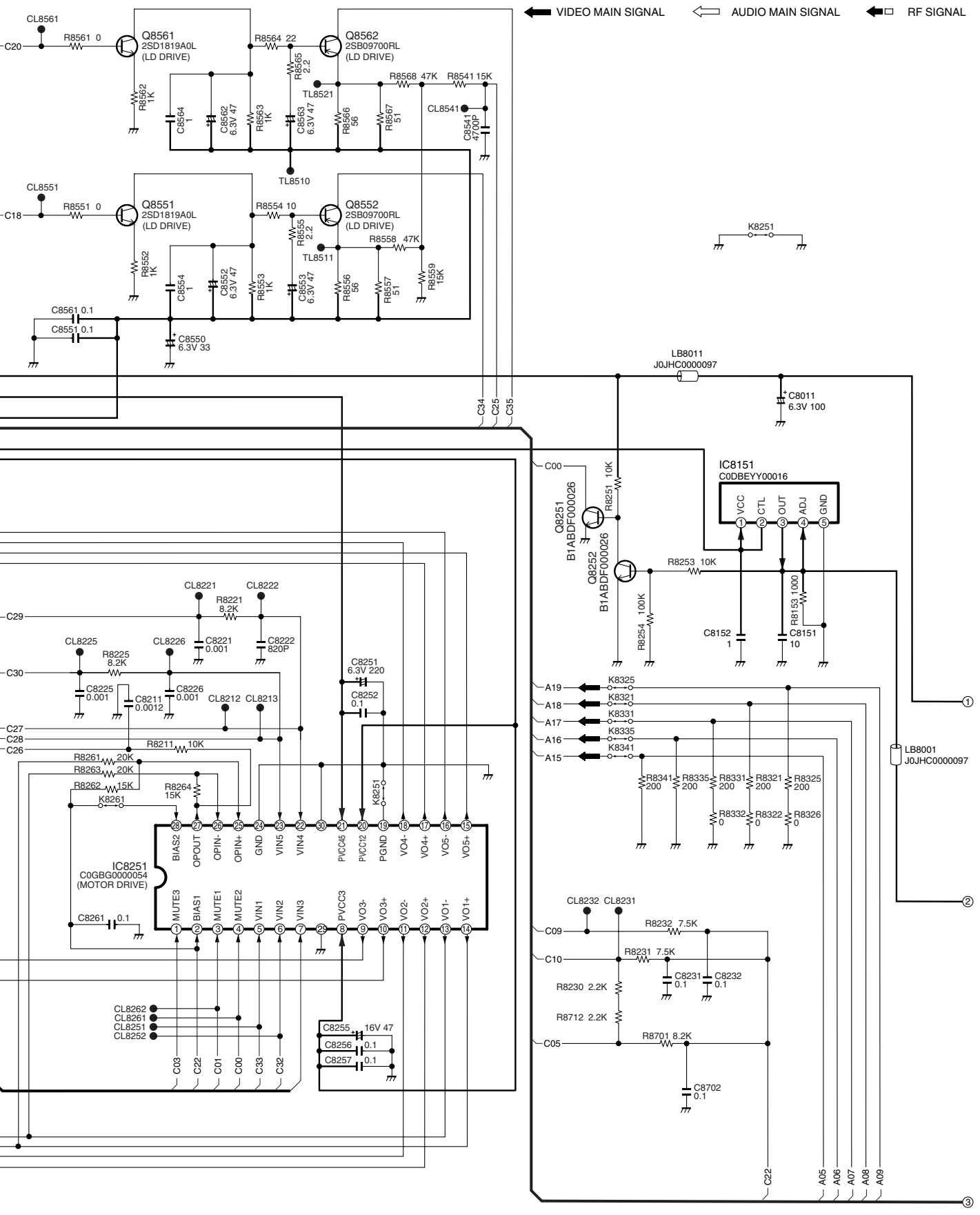


DVD-S32GN/PX
FRONT & AV OUT SECTION (MOTHER P.C.B (2/2))
SCHEMATIC DIAGRAM

21	22	23	24	25

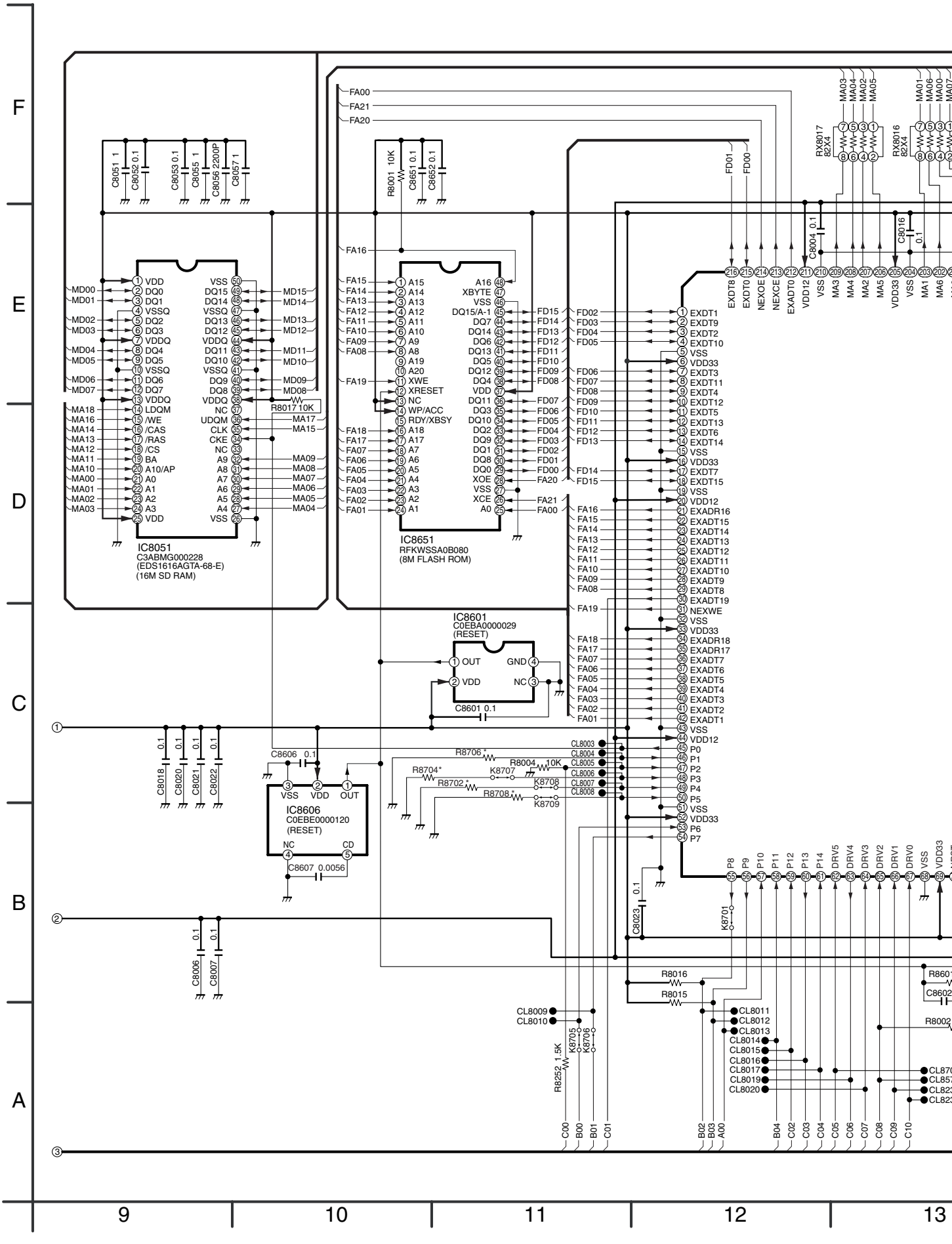
15.4. MODULE SCHEMATIC DIAGRAM (DVD-S32PX)

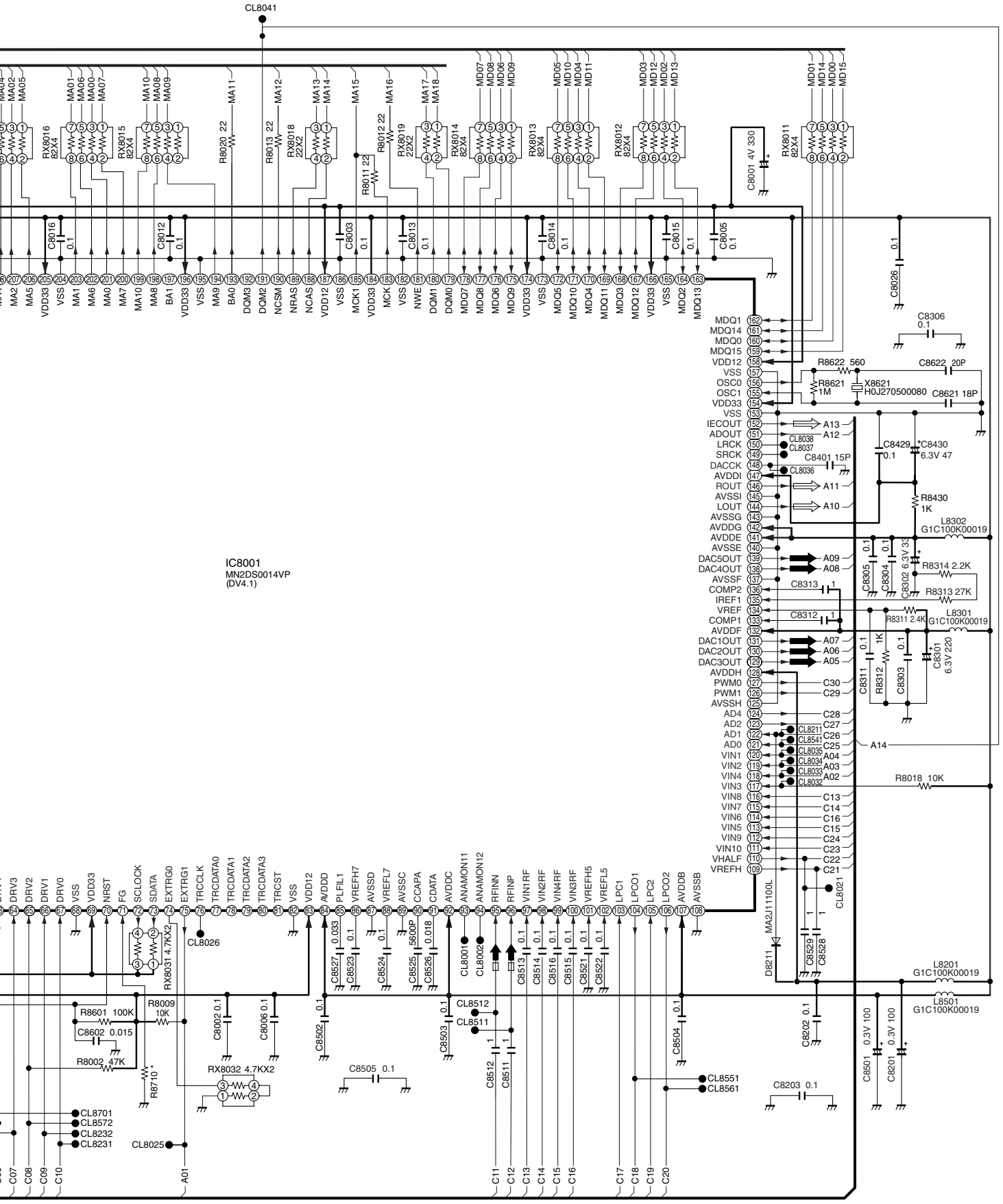




DVD-S32PX MODULE SCHEMATIC DIAGRAM

5 | 6 | 7 | 8 | 9

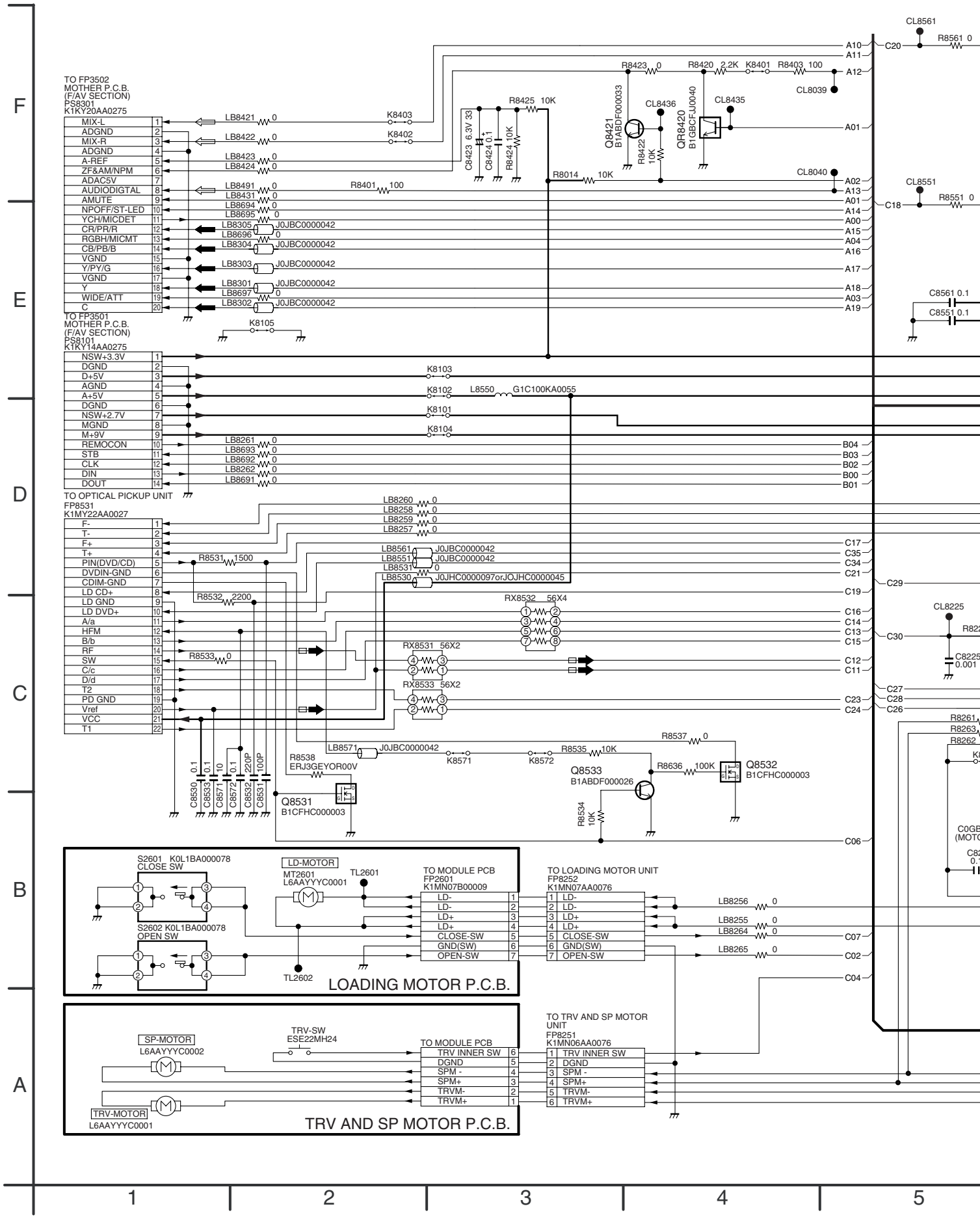

IC8051
C3ABMG000228
(EDS1616AGTA-68-E)
(16M SD RAM)
IC8651
RFKWSSA0B080
(8M FLASH ROM)
IC8601
C0EBA0000029
(RESET)
IC8606
C0EBE0000120
(RESET)
R8017 10K
C8601 0.1
C8606 0.1
C8607 0.0056
R8706*
R8704*
R8702*
R8708*
R8004 10K
K8707
K8708
K8709
R8016
R8015
R8252 1.5K
K8705
K8706
K8701
C8023 0.1
C8004 0.1
C8016 0.1
RX8017 8ZX4
RX8016 8ZX4
F
E
D
C
B
A
9
10
11
12
13

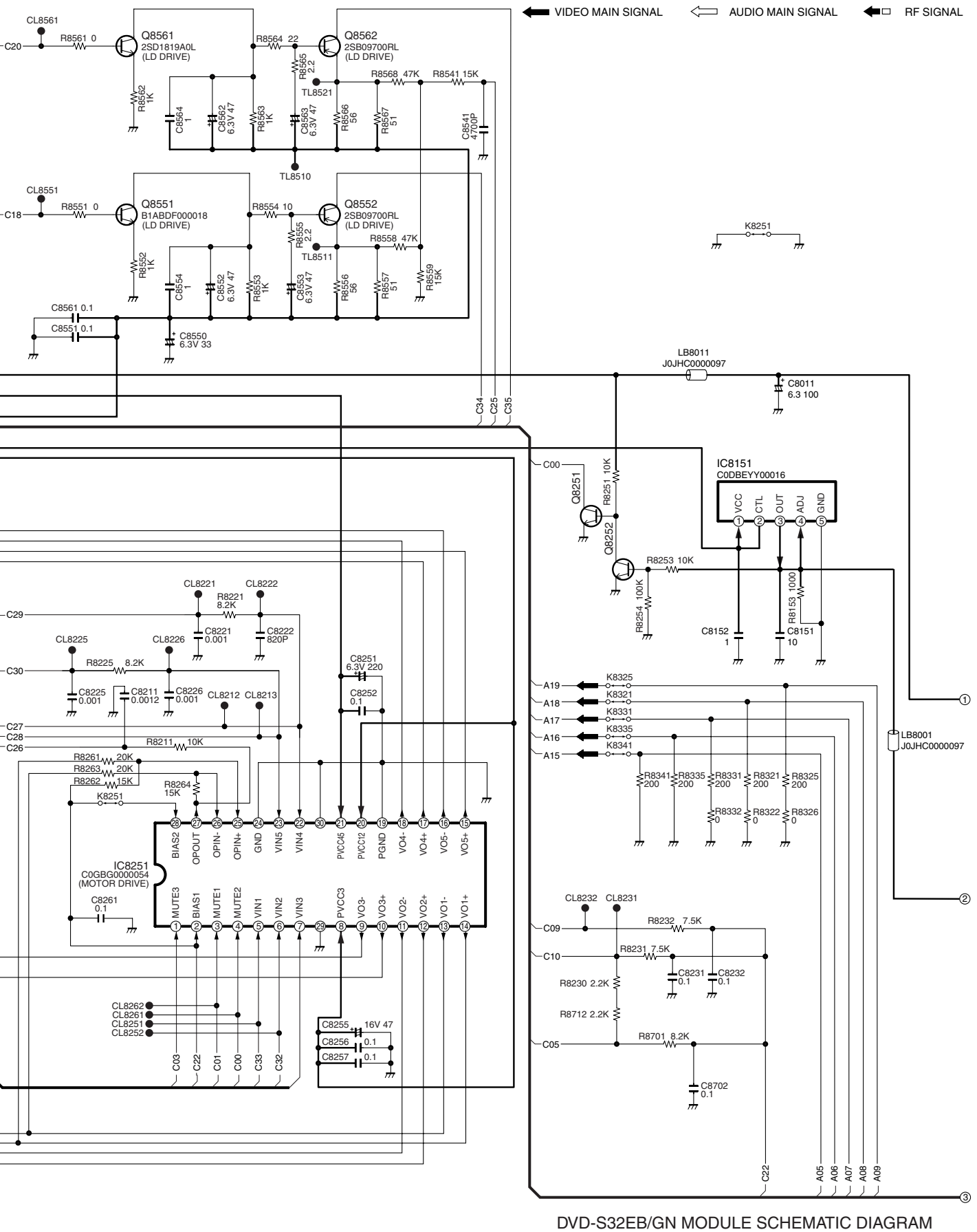


DVD-S32PX MODULE SCHEMATIC DIAGRAM

13	14	15	16	17

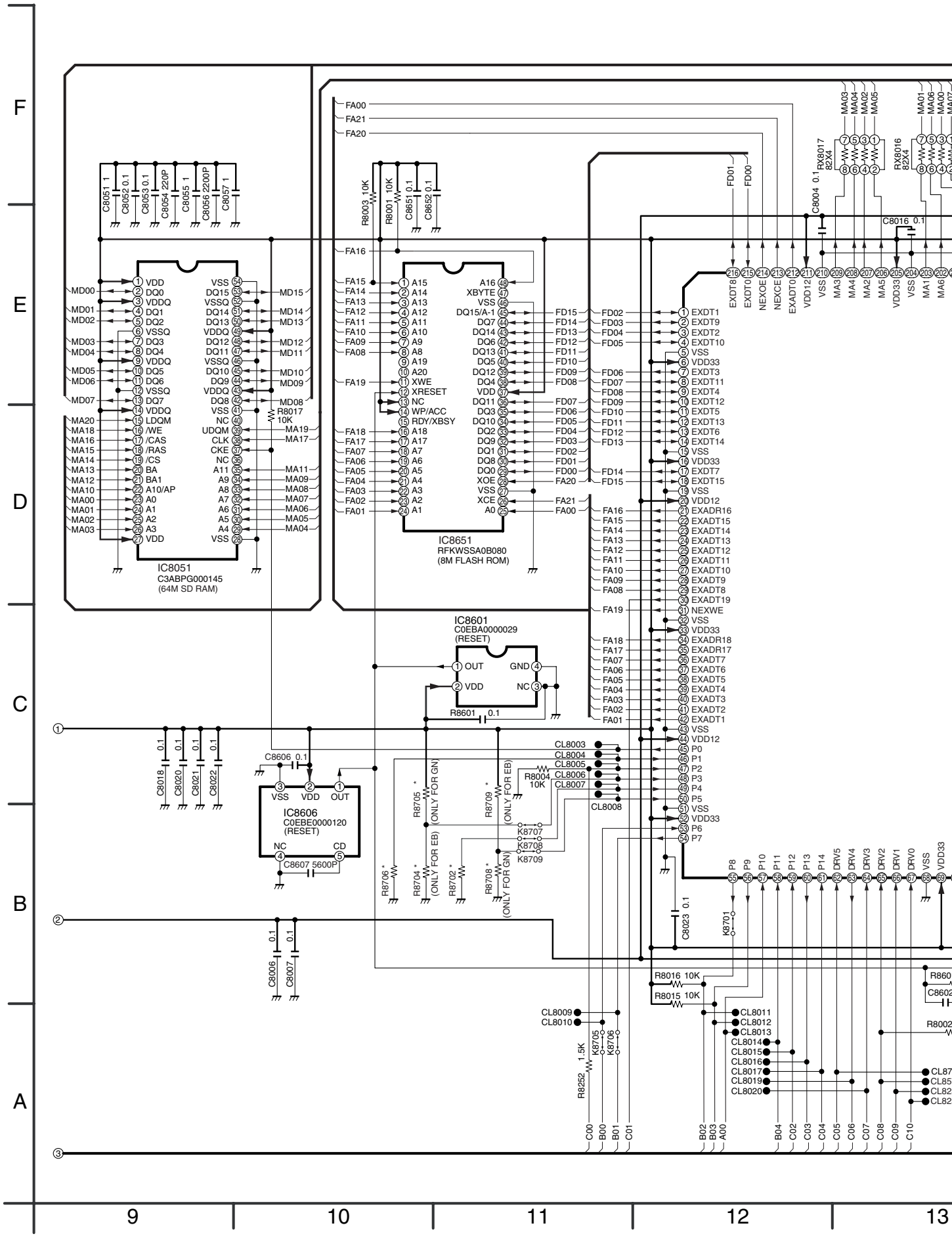
15.5. MODULE SCHEMATIC DIAGRAM (DVD-S32EB/GN)

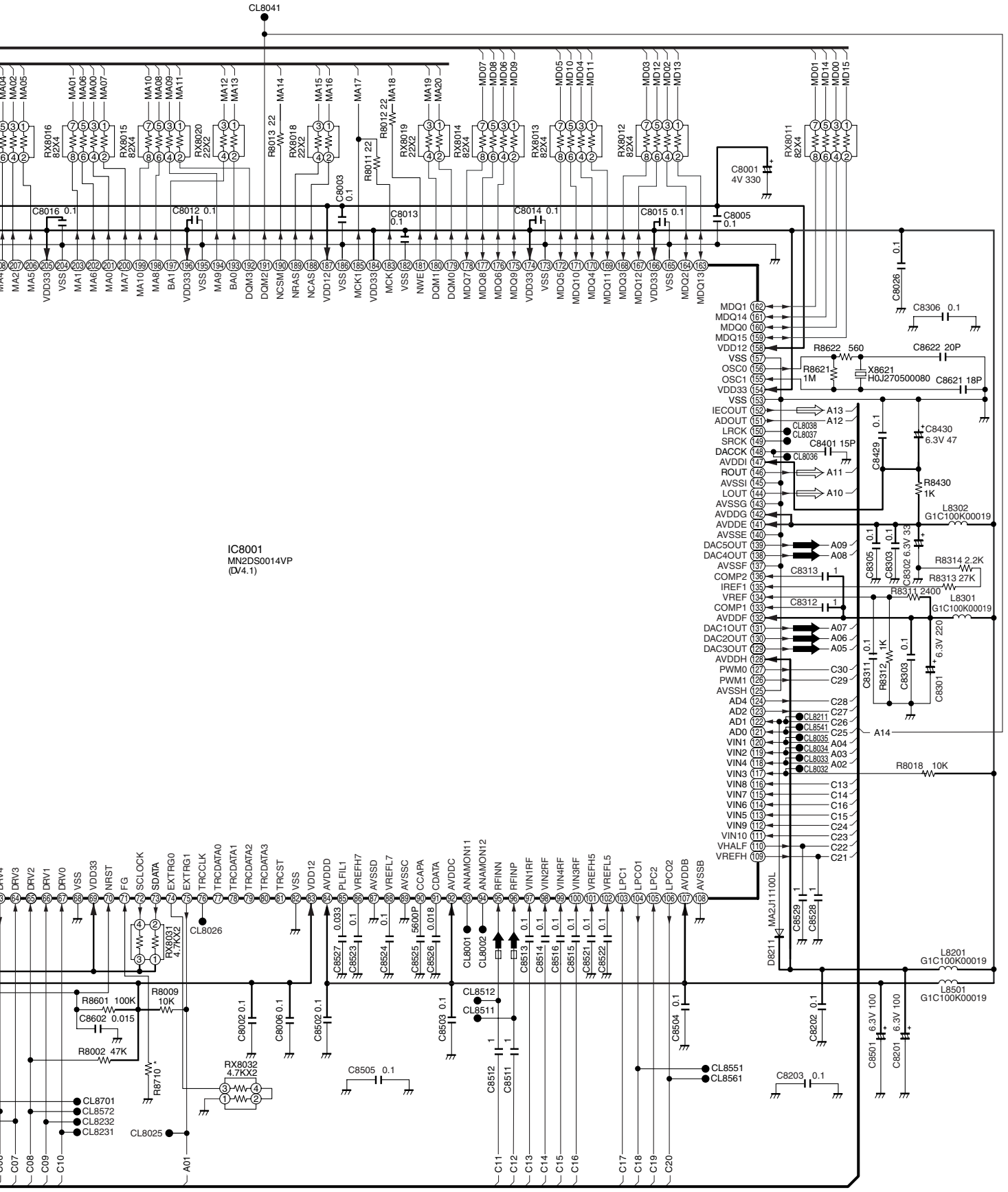




DVD-S32EB/GN MODULE SCHEMATIC DIAGRAM

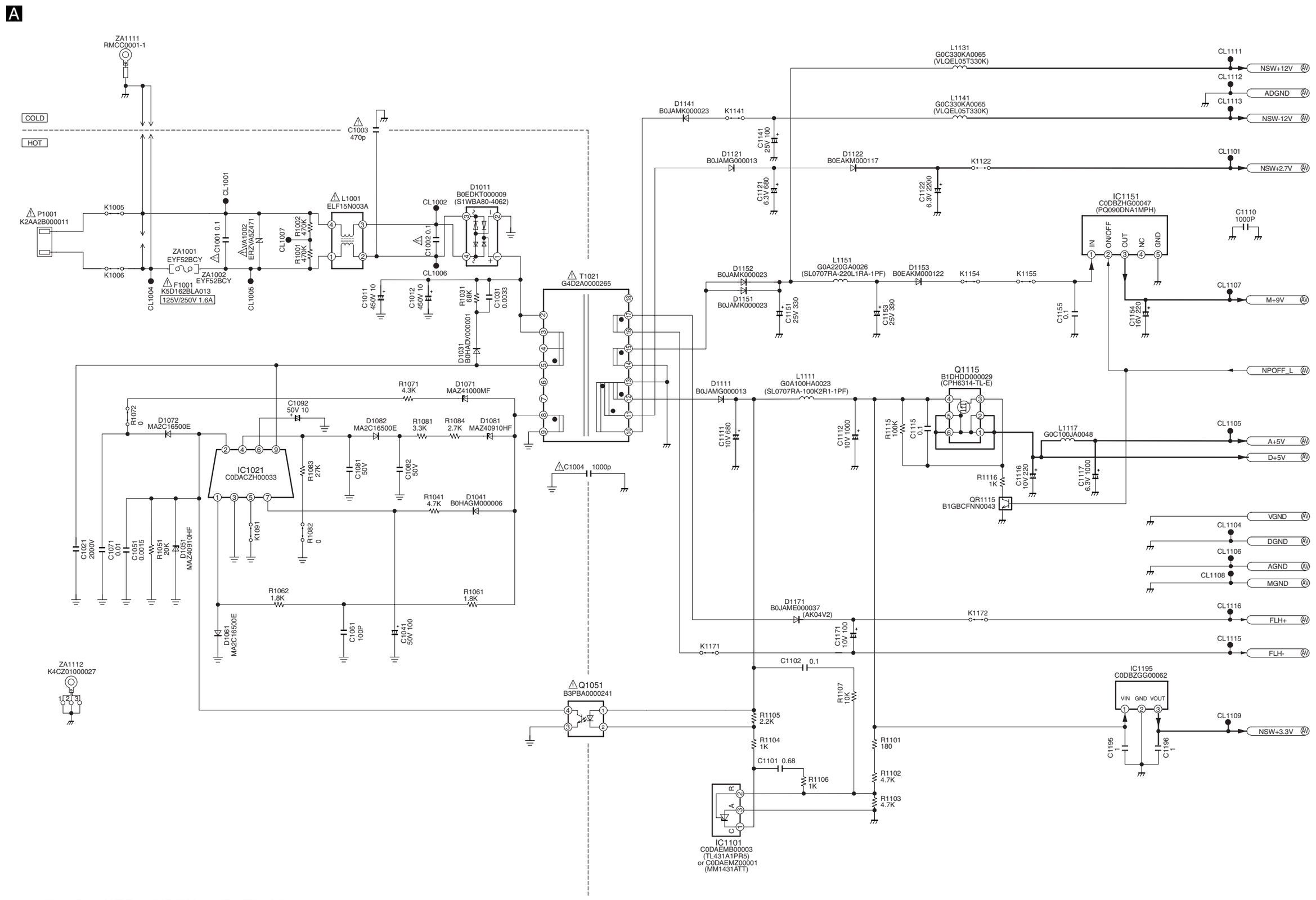
5 | 6 | 7 | 8 | 9


IC8051
C3ABPG000145
(64M SD RAM)
IC8651
RFKWSSA0B080
(8M FLASH ROM)
IC8601
C0EBA0000029
(RESET)
IC8606
C0EBE0000120
(RESET)
F
E
D
C
B
A
9
10
11
12
13



DVD-S32EB/GN MODULE SCHEMATIC DIAGRAM

13	14	15	16	17



A:PO(POWER SUPPLY SECTION)
B:F/AV(FRONT & AV OUT SECTION)

DVD-S32EB/GN/PX
POWER SUPPLY SECTION(MOTHER P.C.B.(1/2))
SCHEMATIC DIAGRAM

IC8051
C3ABPG000145
(64M SD RAM)

IC8651
RFKWSSA0B080
(8M FLASH ROM)

IC8601
C0EBA0000029
(RESET)

IC8606
C0EBE0000120
(RESET)

IC8001
MN2DS0014VP
(DV4.1)

DVD-S32EB/GN MODULE SCHEMATIC DIAGRAM

VIDEO MAIN SIGNAL AUDIO MAIN SIGNAL RF SIGNAL

TO FP3502
MOTHER P.C.B.
(F/AV SECTION)
PS8301
K1KY20AA0275

MIX-L	1
ADGND	2
MIX-R	3
ADGND	4
A-REF	5
ZF&AM/NPM	6
ADAC5V	7
AUDIODIGTAL	8
AMUTE	9
NPOFF/ST-LED	10
YCH/MICDET	11
CR/PR/R	12
RGBH/MICMT	13
CB/PB/B	14
VGND	15
Y/PY/G	16
VGND	17
Y	18
WIDE/ATT	19
C	20

TO FP3501
MOTHER P.C.B.
(F/AV SECTION)
PS8101
K1KY14AA0275

NSW+3.3V	1
DGND	2
D+5V	3
AGND	4
A+5V	5
DGND	6
NSW+2.7V	7
MGND	8
M+9V	9
REMOCON	10
STB	11
CLK	12
DIN	13
DOUT	14

TO OPTICAL PICKUP UNIT
FP8531
K1MY22AA0027

F-	1
T-	2
F+	3
T+	4
PIN(DVD/CD)	5
DVDIN-GND	6
CDIM-GND	7
LD CD+	8
LD GND	9
LD DVD+	10
A/a	11
HFM	12
B/b	13
RF	14
SW	15
C/c	16
D/d	17
T2	18
PD GND	19
Vref	20
VCC	21
T1	22

LB8421 0 K8403
LB8422 0 K8402
LB8423 0
LB8424 0
LB8491 0
LB8431 0
LB8694 0
LB8695 0
LB8305 0 J0JBC0000042
LB8696 0
LB8304 0 J0JBC0000042
LB8303 0 J0JBC0000042
LB8301 0 J0JBC0000042
LB8697 0
LB8302 0 J0JBC0000042
K8105
LB8261 0
LB8693 0
LB8692 0
LB8262 0
LB8691 0
LB8260 0
LB8258 0
LB8259 0
LB8257 0
LB8561 J0JBC0000042
LB8551 J0JBC0000042
LB8531 0
LB8530 J0JHC0000097orJ0JHC0000045
R8531 1500
R8532 2200
R8533 0
RX8532 56X4
RX8531 56X2
RX8533 56X2
C8423 6.3V 33
C8424 0.1
R8425 10K
R8424 10K
R8423 0
R8420 2.2K
K8401
R8403 100
CL8039
Q8421 B1ABDF000033
CL8436
R8422 10K
QR8420 B1GBCFJJ0040
CL8435
R8014 10K
CL8040
R8401 100
C8530 0.1
C8533 0.1
C8571 10
C8572 0.1
C8532 220P
C8531 100P
R8538 ERJ3GEYOR00V
Q8531 B1CFHC000003
LB8571 J0JBC0000042
K8571
K8572
R8535 10K
R8537 0
Q8533 B1ABDF000026
R8636 100K
Q8532 B1CFHC000003
R8534 10K
A10 A11 A12 A01 A02 A13 A01 A14 A00 A15 A04 A16 A17 A18 A03 A19
B04 B03 B02 B00 B01
C17 C35 C34 C21 C19 C16 C14 C13 C15 C12 C11 C23 C24 C06 C07 C02 C04

CL8561
C20
R8561 0
Q8561 2SD1819A0L (LD DRIVE)
R8564 22
Q8562 2SB09700RL (LD DRIVE)
R8562 1K
R8555 2.2
TL8521
R8568 47K
R8541 15K
C8564 1
C8562 6.3V 47
R8563 1K
C8563 6.3V 47
R8566 56
R8567 51
C8541 4700P
TL8510
CL8551
C18
R8551 0
Q8551 B1ABDF000018 (LD DRIVE)
R8554 10
Q8552 2SB09700RL (LD DRIVE)
R8552 1K
R8555 2.2
TL8511
R8558 47K
R8559 15K
C8554 1
C8552 6.3V 47
R8553 1K
C8553 6.3V 47
R8556 56
R8557 51
C8561 0.1
C8551 0.1
C8550 6.3V 33
C34 C25 C35

K8251
LB8011 J0JHC0000097
C8011 6.3 100
C00
Q8251
R8251 10K
Q8252
R8254 100K
R8253 10K
IC8151 C0DBEYY00016
VCC CTL OUT ADJ GND
C8152 1
R8153 1000
C8151 10

CL8221 CL8222
R8221 8.2K
C8221 0.001
C8222 820P
CL8225 CL8226
R8225 8.2K
C8225 0.001
C8211 0.0012
C8226 0.001
CL8212 CL8213
C8251 6.3V 220
C8252 0.1
C29 C30 C27 C28 C26
R8211 10K
R8261 20K
R8263 20K
R8262 15K
R8264 15K
K8251
IC8251 C0GBG0000054 (MOTOR DRIVE)
BIAS2 OPOUT OPIN- OPIN+ GND VIN5 VIN4 PVCC5 PVCC12 PGND VO4- VO4+ VO5- VO5+
C8261 0.1
MUTE3 BIAS1 MUTE1 MUTE2 VIN1 VIN2 VIN3 PVCC3 VO3- VO3+ VO2- VO2+ VO1- VO1+
CL8262 CL8261 CL8251 CL8252
C03 C22 C01 C00 C33 C32
C8255 16V 47
C8256 0.1
C8257 0.1

K8325 K8321 K8331 K8335 K8341
A19 A18 A17 A16 A15
R8341 200 R8335 200 R8331 200 R8321 200 R8325 200
R8332 0 R8322 0 R8326 0
LB8001 J0JHC0000097
CL8232 CL8231
C09 C10 C05
R8232 7.5K
R8231 7.5K
C8231 0.1
C8232 0.1
R8230 2.2K
R8712 2.2K
R8701 8.2K
C8702 0.1
C22 A05 A06 A07 A08 A09

S2601 K0L1BA000078 CLOSE SW
S2602 K0L1BA000078 OPEN SW
LD-MOTOR
MT2601 L6AAYYYC0001
TL2601
TL2602
TO MODULE PCB
FP2601
K1MN07B00009

LD-	1
LD-	2
LD+	3
LD+	4
CLOSE-SW	5
GND(SW)	6
OPEN-SW	7

TO LOADING MOTOR UNIT
FP8252
K1MN07AA0076

LD-	1
LD-	2
LD+	3
LD+	4
CLOSE-SW	5
GND(SW)	6
OPEN-SW	7

LB8256 0
LB8255 0
LB8264 0
LB8265 0
LOADING MOTOR P.C.B.

SP-MOTOR L6AAYYYC0002
TRV-SW ESE22MH24
TRV-MOTOR L6AAYYYC0001
TO MODULE PCB

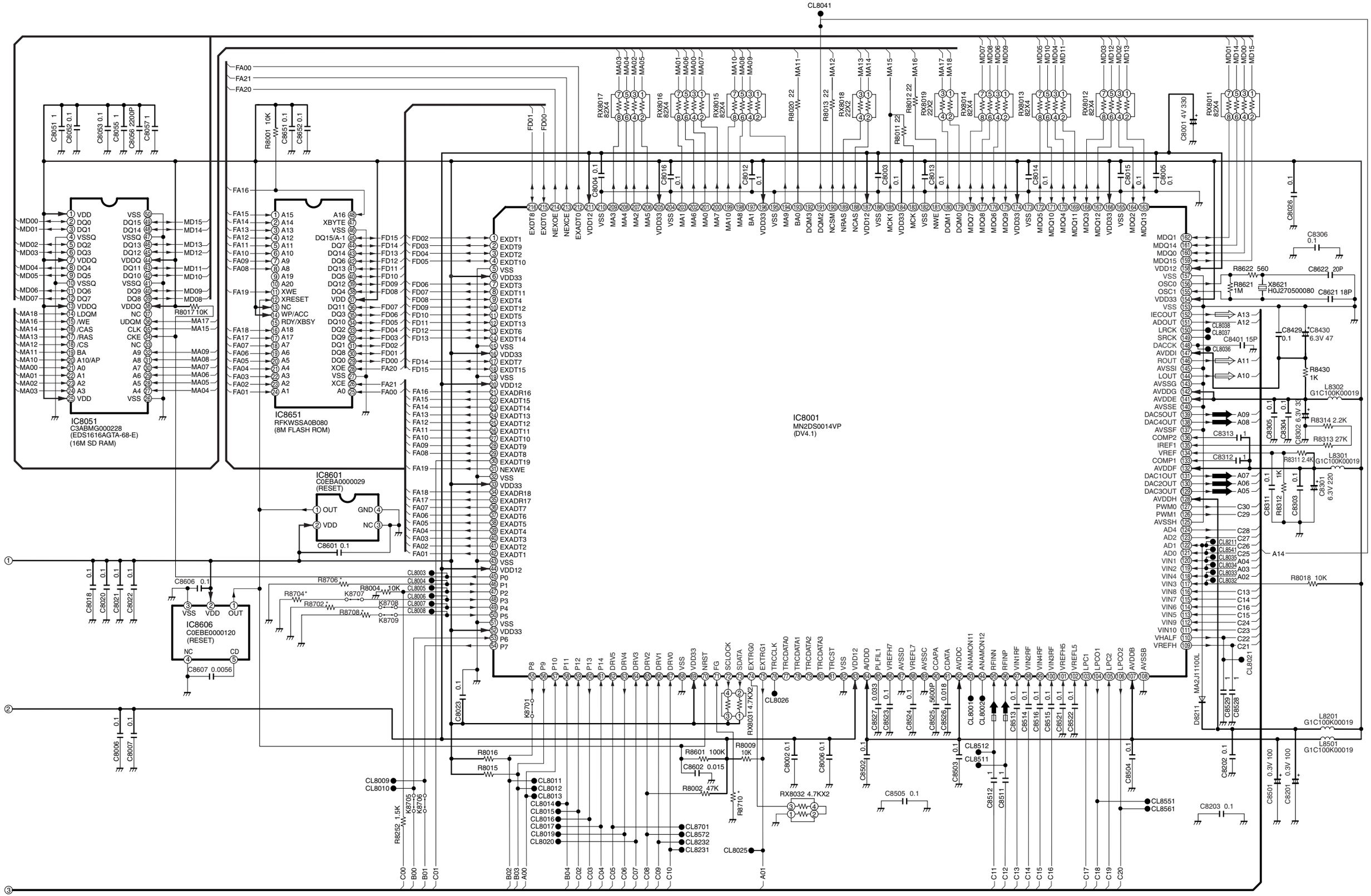
TRV INNER SW	6	1
DGND	5	2
SPM -	4	3
SPM+	3	4
TRVM-	2	5
TRVM+	1	6

TO TRV AND SP MOTOR UNIT
FP8251
K1MN06AA0076

TRV INNER SW	1
DGND	2
SPM -	3
SPM+	4
TRVM-	5
TRVM+	6

TRV AND SP MOTOR P.C.B.

DVD-S32EB/GN MODULE SCHEMATIC DIAGRAM



DVD-S32PX MODULE SCHEMATIC DIAGRAM

VIDEO MAIN SIGNAL AUDIO MAIN SIGNAL RF SIGNAL

TO FP3502
MOTHER P.C.B.
(F/AV SECTION)
PS8301
K1KY20AA0275

MIX-L	1
ADGND	2
MIX-R	3
ADGND	4
A-REF	5
ZF&AM/NPM	6
ADAC5V	7
AUDIODIGTAL	8
AMUTE	9
NPOFF/ST-LED	10
YCH/MICDET	11
CR/PR/R	12
RGBH/MICMT	13
CB/PB/B	14
VGND	15
Y/PY/G	16
VGND	17
Y	18
WIDE/ATT	19
C	20

TO FP3501
MOTHER P.C.B.
(F/AV SECTION)
PS8101
K1KY14AA0275

NSW+3.3V	1
DGND	2
D+5V	3
AGND	4
A+5V	5
DGND	6
NSW+2.7V	7
MGND	8
M+9V	9
REMOCON	10
STB	11
CLK	12
DIN	13
DOUT	14

TO OPTICAL PICKUP UNIT
FP8531
K1MY22AA0027

F-	1
T-	2
F+	3
T+	4
PIN(DVD/CD)	5
DVDIN-GND	6
CDIM-GND	7
LD CD+	8
LD GND	9
LD DVD+	10
A/a	11
HFM	12
B/b	13
RF	14
SW	15
C/c	16
D/d	17
T2	18
PD GND	19
Vref	20
VCC	21
T1	22

LOADING MOTOR P.C.B.

S2601 K0L1BA000078 CLOSE SW
S2602 K0L1BA000078 OPEN SW
LD-MOTOR L6AAYYYC0001
TL2601
TL2602
TO MODULE PCB FP2601 K1MN07B00009

LD-	1
LD-	2
LD+	3
LD+	4
CLOSE-SW	5
GND(SW)	6
OPEN-SW	7

TO LOADING MOTOR UNIT FP8252 K1KN07AA0076

1	LD-
2	LD-
3	LD+
4	LD+
5	CLOSE-SW
6	GND(SW)
7	OPEN-SW

TRV AND SP MOTOR P.C.B.

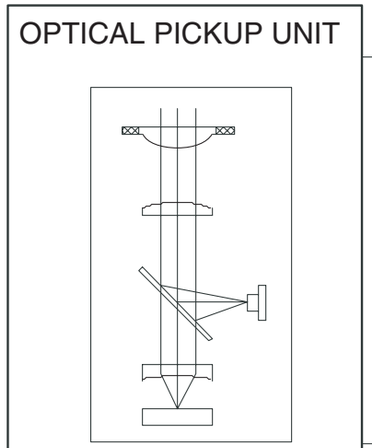
SP-MOTOR L6AAYYYC0002
TRV-MOTOR L6AAYYYC0001
TRV-SW ESE22MH24
TO MODULE PCB

TRV INNER SW	6
DGND	5
SPM -	4
SPM+	3
TRVM-	2
TRVM+	1

TO TRV AND SP MOTOR UNIT FP8251 K1MN06AA0076

1	TRV INNER SW
2	DGND
3	SPM -
4	SPM+
5	TRVM-
6	TRVM+

DVD-S32PX MODULE SCHEMATIC DIAGRAM



OPTICAL PICKUP UNIT

MECHANISM UNIT

LOADING MOTOR P.C.B.

MODULE P.C.B.

MOTHER P.C.B.

POWER-SW P.C.B.

OPERATION P.C.B.

FP8531

22	T1
21	VCC
20	Vref
19	PD GND
18	T2
17	D/d
16	C/c
15	SW
14	RF
13	B/b
12	HFM
11	A/a
10	LD DVD+
9	LD GND
8	LD CD+
7	CDIM-GND
6	DVDIN-GND
5	PIN(DVD/CD)
4	T+
3	F+
2	T-
1	F-

TRVM+	1
TRVM-	2
SPM+	3
SPM-	4
DGND	5
TRY_INNER_SW	6

FP8251

6	TRVM+
5	TRVM-
4	SPM+
3	SPM-
2	DGND
1	TRY_INNER_SW

OPEN_SW	7
GND(SW)	6
CLOSE_SW	5
LD+	4
LD+	3
LD-	2
LD-	1

FP8252

7	OPEN_SW
6	GND(SW)
5	CLOSE_SW
4	LD+
3	LD+
2	LD-
1	LD-

PS8301

C	20
WIDE/ATT	19
Y	18
VGND	17
Y/PY/G	16
VGND	15
CB/PB/B	14
RGBH/MICMUTE	13
CR/PR/R	12
YCH/MICDET	11
NP OFF/ST LED	10
AMUTE	9
AUDIO DIGTAL	8
ADAC5V	7
ZF&AM/NPM	6
A-REF	5
ADGND	4
MIX-R	3
ADGND	2
MIX-L	1

FP3502

20	C
19	WIDE/ATT
18	Y
17	VGND
16	Y/PY/G
15	VGND
14	CB/PB/B
13	RGBH/MICMUTE
12	CR/PR/R
11	YCH/MICDET
10	NP OFF/ST LED
9	AMUTE
8	AUDIO DIGTAL
7	ADAC5V
6	ZF&AM/NPM
5	A-REF
4	ADGND
3	MIX-R
2	ADGND
1	MIX-L

PS8101

DOUT	14
DIN	13
CLK	12
STB	11
REMOCON	10
M+9V	9
MGND	8
NSW+2.7	7
DGND	6
A+5V	5
AGND	4
D+5V	3
DGND	2
NSW+3.3V	1

FP3501

14	DOUT
13	DIN
12	CLK
11	STB
10	REMOCON
9	M+9V
8	MGND
7	NSW+2.7
6	DGND
5	A+5V
4	AGND
3	D+5V
2	DGND
1	NSW+3.3V

JW6102

DGND	4
STANDBY LED	3
K2	2
KS1	1

JW6102

4	DGND
3	STANDBY LED
2	K2
1	KS1

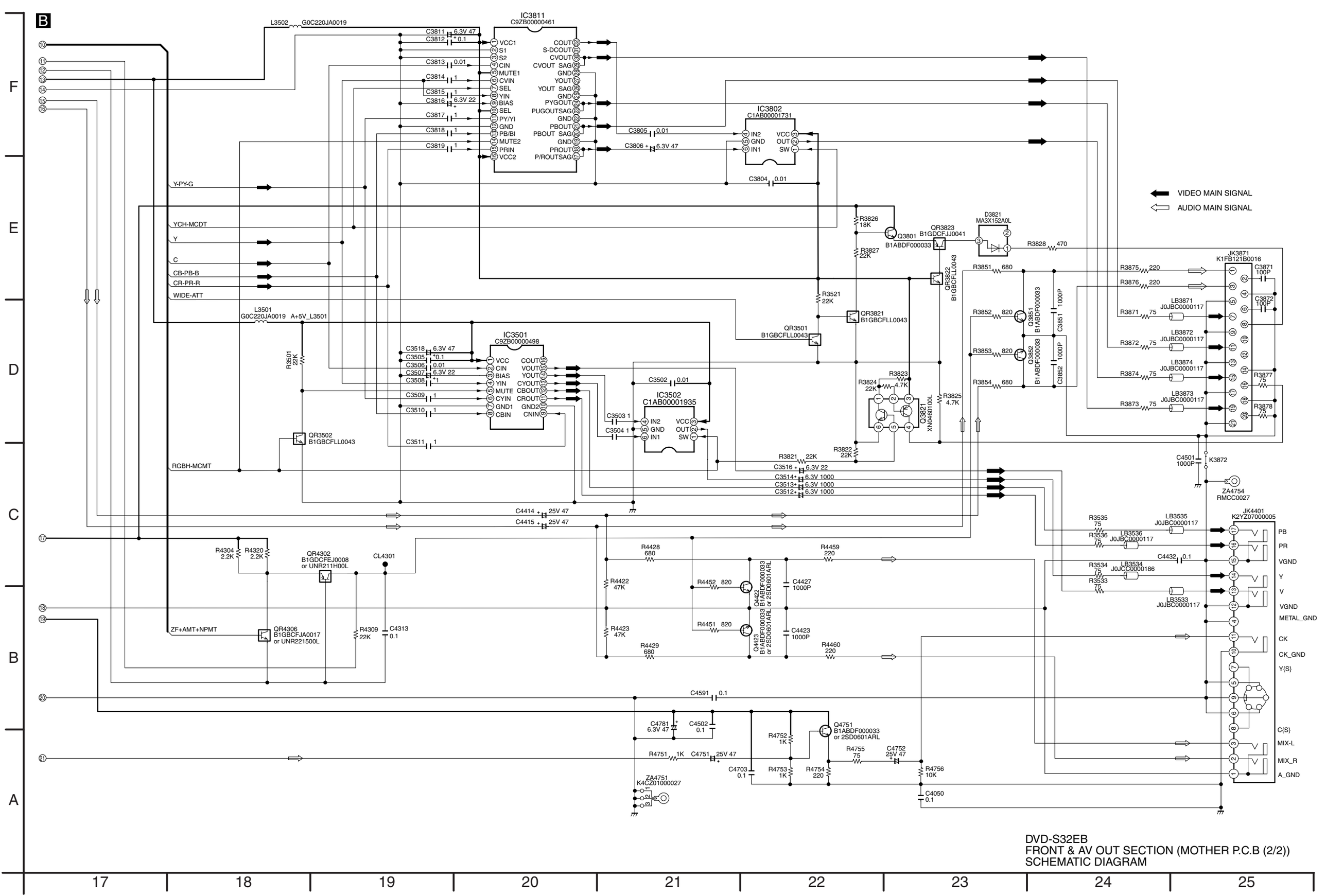
PJ6101

7	6	5	4	3	2	1
K2	K1	KS3	KS2	KS1	DGND	STANDBY LED

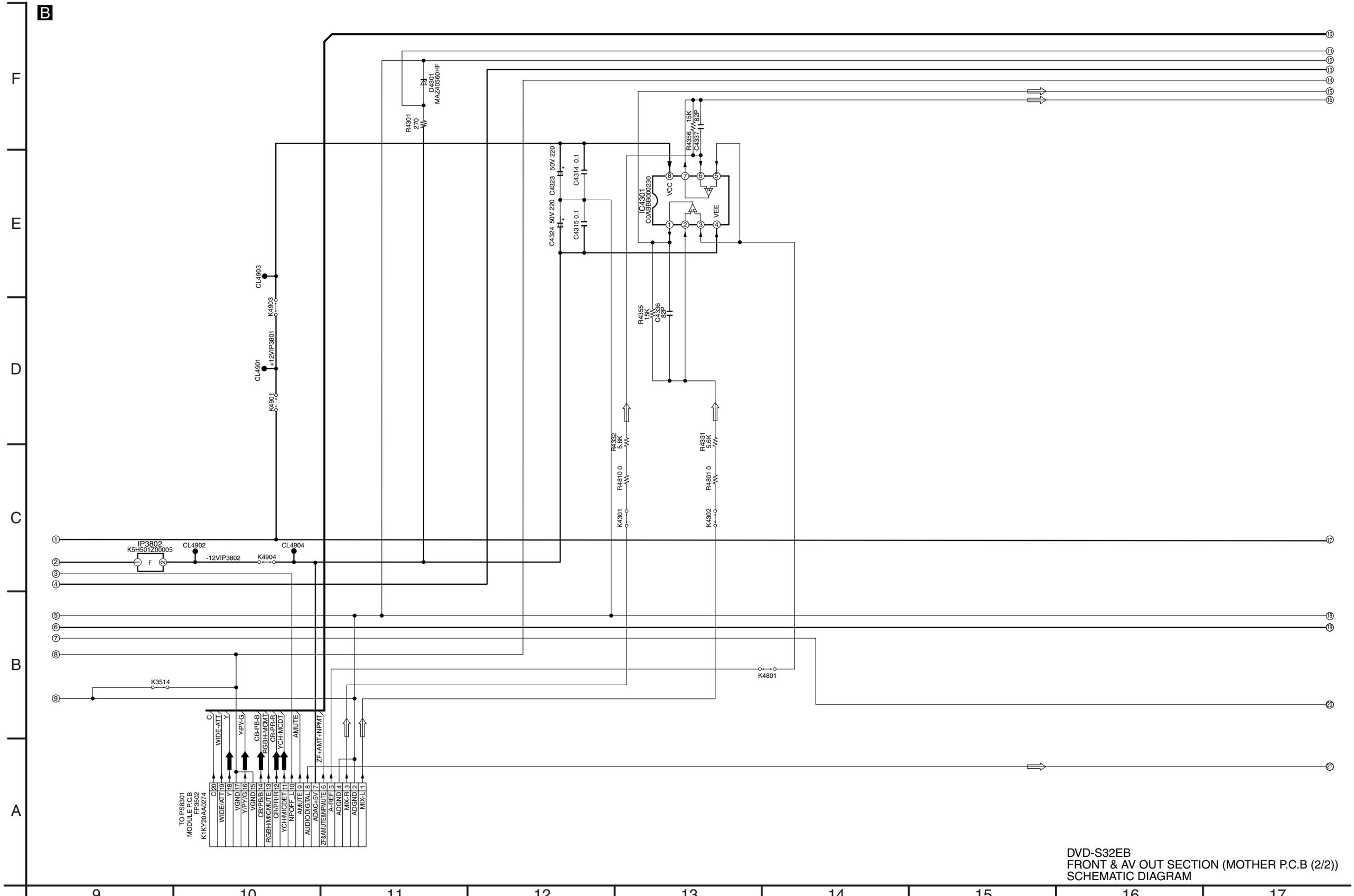
JW6101

7	6	5	4	3	2	1
K2	K1	KS3	KS2	KS1	DGND	STANDBY LED

DVD-S32EB/GN/PX
INTERCONNECTION SCHEMATIC DIAGRAM



DVD-S32EB
FRONT & AV OUT SECTION (MOTHER P.C.B (2/2))
SCHEMATIC DIAGRAM


B
F
E
D
C
B
A
9
10
11
12
13
14
15
16
17
D4301
MAZ40560HF
R4301
270
W
R4356
15K
W
C4337
82P
C4323
50V 220
C4314
0.1
C4324
50V 220
C4315
0.1
IC4301
C0ABBB000230
VCC
VEE
R4355
15K
W
C4336
82P
R4332
5.6K
W
R4331
5.6K
W
R4810 0
W
R4801 0
W
K4301
K4302
CL4903
K4903
CL4901
+12VIP3801
K4901
IP3802
K5H501Z00005
CL4902
-12VIP3802
K4904
CL4904
K3514
K4801
TO PS8301
MODULE P.C.B
FP3502
K1KY20AA0274
C20
WIDE/ATT 19
Y 18
VGND 17
Y/PY/G 16
VGND 15
CB/PB/B 14
RGBH/MICMUTE 13
CR/PR/R 12
YCH/MICDET 11
NPOFF_L 10
AMUTE 9
AUDIODIGTAL 8
ADAC+5V 7
ZF&AMUTE&NPMUTE 6
A-REF 5
ADGND 4
MIX-R 3
ADGND 2
MIX-L 1
C
WIDE-ATT
Y
Y-PY-G
CB-PB-B
RGBH-MCMT
CR-PR-R
YCH-MCDT
AMUTE
ZF+AMT+NPMT
DVD-S32EB
FRONT & AV OUT SECTION (MOTHER P.C.B (2/2))
SCHEMATIC DIAGRAM

VIDEO MAIN SIGNAL　AUDIO MAIN SIGNAL　FOCUS ERROR SIGNAL

B

FLH+
FLH−
NSW-12V
NPOFF_L
NSW+12V
A+5V
ADGND
D+5V
DGND
NSW+3.3V
VGND
AGND
NSW+2.7V
M+9V
MGND

D6081 MAZ40910LF
R6081 ERQ14AJW271E
Q6085 B1ABGC000011 or 2SD132800L
R6086 100K
R6085 8.2K
QR6001 B1GBCFJJ0041 or UNR2211000L
QR6002 B1GDCFJJ0041 or UNR211100L
QR6003 B1GDCFJJ0041 or UNR211100L
QR6004 B1GBCFJJ0041 or UNR2211000L
QR6101 B1GBCFEN0014
L6001 GOC101JA0019 {LAN02TA101J}
CL6028
R6101 330
R6102 330
K6001 NSW-12V_L6001
C6006 0.01
C6005 50V 10

DP6081 A2BA00000229 {4-MT-238N}
CL6030 CL6051 CL6031 CL6032 CL6033 CL6034 CL6035 CL6036 CL6037 CL6038 CL6039 CL6040 CL6041 CL6042 CL6043 CL6044 CL6045 CL6046 CL6047 CL6048 CL6049 CL6050
C6081 0.01
GR4 SG16 SG15 SG14 SG13 SG12 GR3 SG11 SG10 SG9 SG8 GR2 SG7 SG6 SG5 GR1 SG4 SG3 SG2 SG1

IC6001 COHBB0000057
CL6007 CL6006 CL6005
CL6008 CL6009 CL6010 CL6011 CL6012
SG24/GR5 SG23/GR6 SG22/GR7 SG21/GR8 SG20/GR9 SG19/GR10 SG18/GR11 SG17/GR12
VEE SG16 SG15 SG14 SG13 SG12 SG11 SG10 SG9 SG8 SG7 SG6 SG5 SG4 SG3/KS3 SG2/KS2 SG1/KS1
GR4 GR3 GR2 GR1 VDD LED1 LED2 LED3 LED4 OSC DOUT DIN CLK STB K1 K2 VSS
[23]SG10 [24]SG11 [25]SG12 [34]SG20/GR9 [35]SG21/GR8 [36]SG22/GR7 [44]VSS [12]VSS
SG9 SG8 SG7 SG6 SG5 SG4 SG3-KS3 SG2-KS2 SG1-KS1
CL6001 CL6002 CL6003 CL6004
R6001 100K
C6002 0.1
C6001 0.1
R6002 330
C6003 6.3V 100

POWER-SW P.C.B.
POWER_SW
S6152 EVQ11G05R
D6101 LNJ201LPQJA
JW6102 REZ1712
KS1 KS2 STBYLED DGND
JW6102 REZ1712
KS1 K2 STBYLED DGND

OPERATION P.C.B.
JW6101 REZ1711
STBYLED DGND KS1 KS2 KS3 K1 K2
S6171 EVQ11G05R PAUSE
S6162 EVQ11G05R QUICK OSD
S6172 EVQ11G05R STOP
S6161 EVQ11G05R PLAY
S6151 EVQ11G05R OPEN/CLOSE

TO OPERATION P.C.B.
JW6101
PJ6101
K1MP07A00011
STBYLED DGND KS1 KS2 KS3 K1 K2
D6104 MA2J11100L KS1
D6102 MA2J11100L KS2
D6103 MA2J11100L KS3
R6106 0
R6105 0
R6104 10K
R6103 10K

IR6131 B3RAD0000115
OUT VCC GND
L6131 0
C6132 0.1
DIN DOUT CLK STB REMOCON

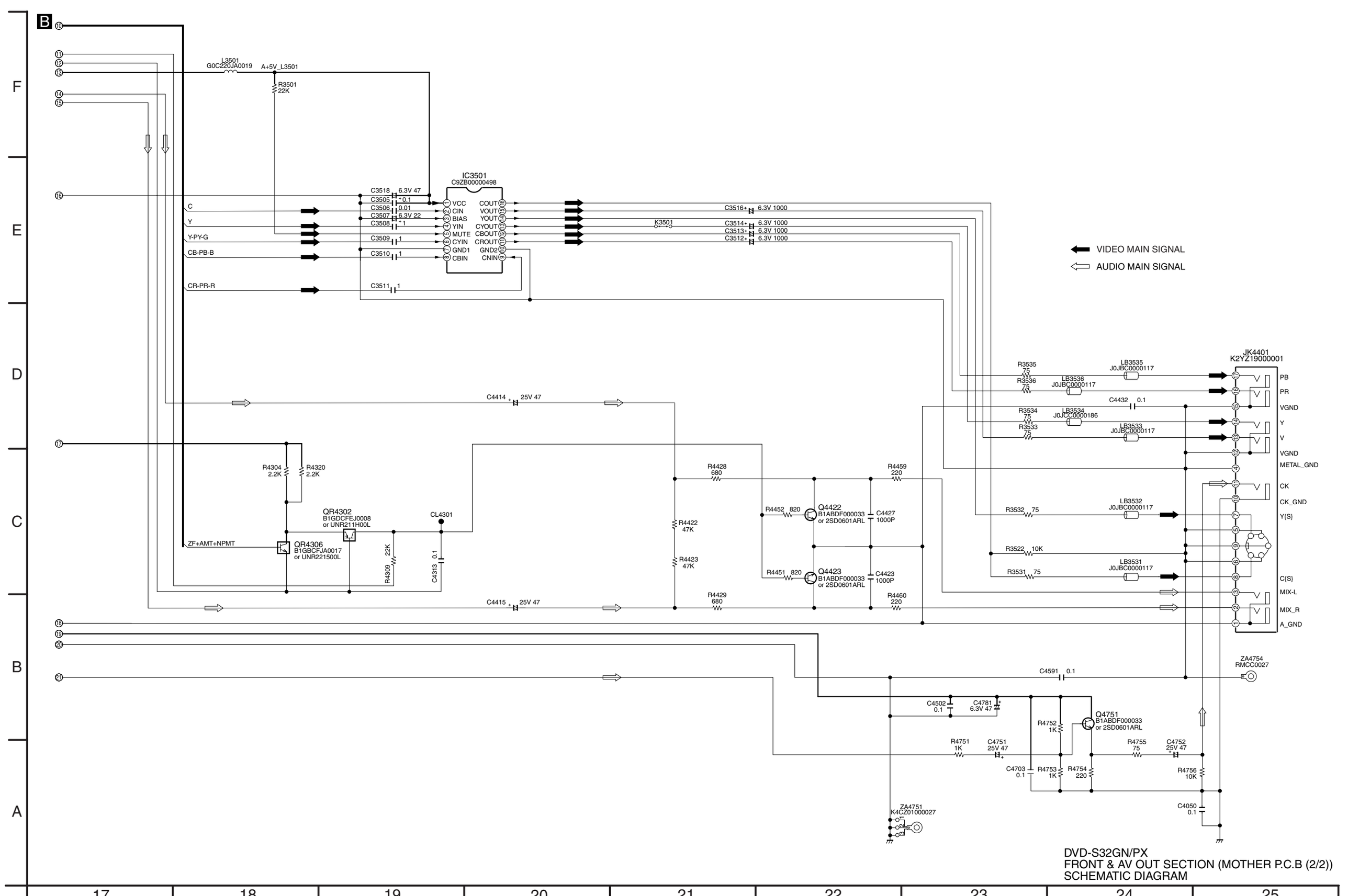
IP4751 K5H252Z00003
D+5V_IP4751

R3511 R3512 R3513 R3514 R3515 0
K3512
K3511
DOUT DIN CLK STB REMOCON

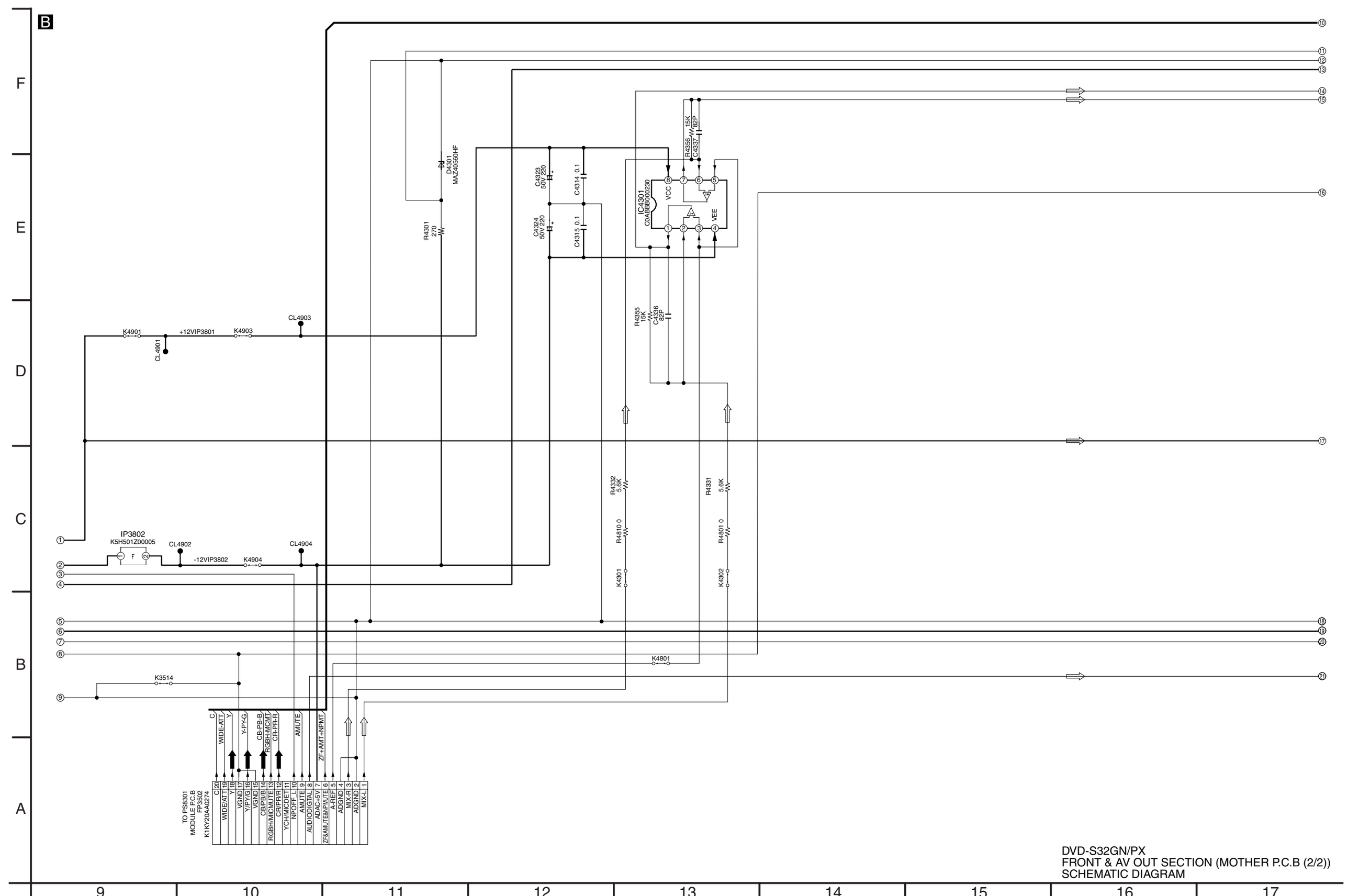
TO PS8101
MODULE P.C.B
FP3501
K1KY14AA0274
DOUT DIN CLK STB REMOCON M+9V MGND NSW+2.7V DGND A+5V AGND D+5V DGND NSW+3.3V

A:PO(POWER SUPPLY SECTION)
B:F/AV(FRONT & AV OUT SECTION)

DVD-S32EB
FRONT & AV OUT SECTION (MOTHER P.C.B (2/2))
SCHEMATIC DIAGRAM



DVD-S32GN/PX
FRONT & AV OUT SECTION (MOTHER P.C.B (2/2))
SCHEMATIC DIAGRAM



DVD-S32GN/PX
FRONT & AV OUT SECTION (MOTHER P.C.B (2/2))
SCHEMATIC DIAGRAM

VIDEO MAIN SIGNAL AUDIO MAIN SIGNAL FOCUS ERROR SIGNAL

B

FLH+
FLH–
D6081 MAZ40910LF
R6081 ERQ14AJW271E
Q6085 B1ABGC000011
R6086 100K
R6085 8.2K
QR6001 B1GBCFJJ0041
QR6002 B1GDCFJJ0041
QR6003 B1GDCFJJ0041
QR6004 B1GBCFJJ0041
K6001 NSW-12V_K6001
C6006 0.01
C6005 50V 10
NSW-12V
L6001 GOC101JA0019
NSW-12V_L6001
CL6028
NPOFF_L
R6101 330
R6102 330
QR6101 B1GBCFEN0014

DP6081
A2BA00000229
{4-MT-238N}
F- F- 4G P16 P15 4G P14 P13 P12 4G 3G P11 P10 P9 3G P8 2G P7 P6 P5 2G 1G P4 P3 1G P2 P1 1G F+ F+
CL6030 CL6051 CL6031 CL6032 CL6033 CL6034 CL6035 CL6036 CL6037 CL6038 CL6039 CL6040 CL6041 CL6042 CL6043 CL6044 CL6045 CL6046 CL6047 CL6048 CL6049 CL6050 C6081 0.01
GR4 SG16 SG15 SG14 SG13 SG12 GR3 SG11 SG10 SG9 SG8 GR2 SG7 SG6 SG5 GR1 SG4 SG3 SG2 SG1

IC6001
COHBB0000057
CL6007 CL6006 CL6005
CL6008 CL6009 CL6010 CL6011 CL6012
SG16 SG15 SG14 SG13 SG12 SG11 SG10
[23]SG10
SG19/GR10 SG18/GR11 SG17/GR12 VEE
SG23/GR6 SG24/GR5
GR4 GR3 GR2 GR1
[34]SG20/GR9 [35]SG21/GR8 [36]SG22/GR7
VDD [44]VSS LED1 LED2 LED3 LED4 OSC DOUT DIN CLK STB K1 K2
[12]VSS VDD
SG9 SG8 SG7 SG6 SG5 SG4 SG3-KS3 SG2-KS2 SG1-KS1
CL6001 CL6002 CL6003 CL6004 R6001 100K
C6002 0.1
C6001 0.1
R6002 3.3K
C6003 6.3V 100

POWER-SW P.C.B.
POWER_SW
S6152 EVQ11G05R
D6101 LNJ201LPQJA
JW6102 REZ1712
KS1 1
K2 2
STBYLED 3
DGND 4

OPERATION P.C.B.
JW6102 REZ1712
KS1 1
K2 2
STBYLED 3
DGND 4
JW6101 REZ1711
STBYLED 1
DGND 2
KS1 3
KS2 4
KS3 5
K1 6
K2 7
PAUSE S6171 EVQ11G05R
QUICK OSD S6182 EVQ11G05R
STOP S6172 EVQ11G05R
PLAY S6181 EVQ11G05R
OPEN/CLOSE S6151 EVQ11G05R

TO OPERATION P.C.B.
JW6101
PJ6101
K1MP07A00011
1 STBYLED
2 DGND
3 KS1
4 KS2
5 KS3
6 K1
7 K2
D6104 MA2J11100L KS1
D6102 MA2J11100L KS2
D6103 MA2J11100L KS3
R6106 0
R6105 0
R6104 10K
R6103 10K

IR6131 B3RAD0000115
RMT VCC GND
L6131 0
C6132 0.1
DIN DOUT CLK STB REMOCON

NSW+12V
A+5V
ADGND
D+5V
DGND
NSW+3.3V
VGND
AGND
NSW+2.7V
M+9V
MGND
IP4751 K5H252Z00003 D+5V_IP4751
K3512
K3511
R3511 0
R3512 0
R3513 0
R3514 0
R3515 0
DOUT DIN CLK STB REMOCON

TO PS8101
MODULE P.C.B
FP3501
K1KY14AA0274
DOUT 14
DIN 13
CLK 12
STB 11
REMOCON 10
M+9V 9
MGND 8
NSW+2.7V 7
DGND 6
A+5V 5
AGND 4
D+5V 3
DGND 2
NSW+3.3V 1

A :PO(POWER SUPPLY SECTION)
B :F/AV(FRONT & AV OUT SECTION)

DVD-S32GN/PX
FRONT & AV OUT SECTION (MOTHER P.C.B (2/2))
SCHEMATIC DIAGRAM

1 2 3 4 5 6 7 8 9

MOTHER P.C.B.

Transistor	
Q1051	D-5
Q1115	E-6
Q3801(EB)	A-3
Q3821(EB)	A-3
Q3851(EB)	A-2
Q3852(EB)	A-2
Q4422	A-5
Q4423	A-5
Q4751	B-5
Q6085	F-3

Transistor-resistor	
QR1115	F-6
QR3501(EB)	B-3
QR3502(EB)	B-4
QR3821(EB)	B-3
QR3822(EB)	A-3
QR3823(EB)	A-3
QR4302	D-4
QR4306	D-4
QR6001	F-3
QR6002	F-3
QR6003	F-3
QR6004	F-3
QR6101	F-3

Inntegrated Circuit	
IC1021	C-6
IC1101	D-5
IC1151	E-6
IC1195	E-4
IC3501	B-4
IC3502(EB)	A-4
IC3802(EB)	A-3
IC3811(EB)	B-3
IC4301	C-4
IC6001	F-2

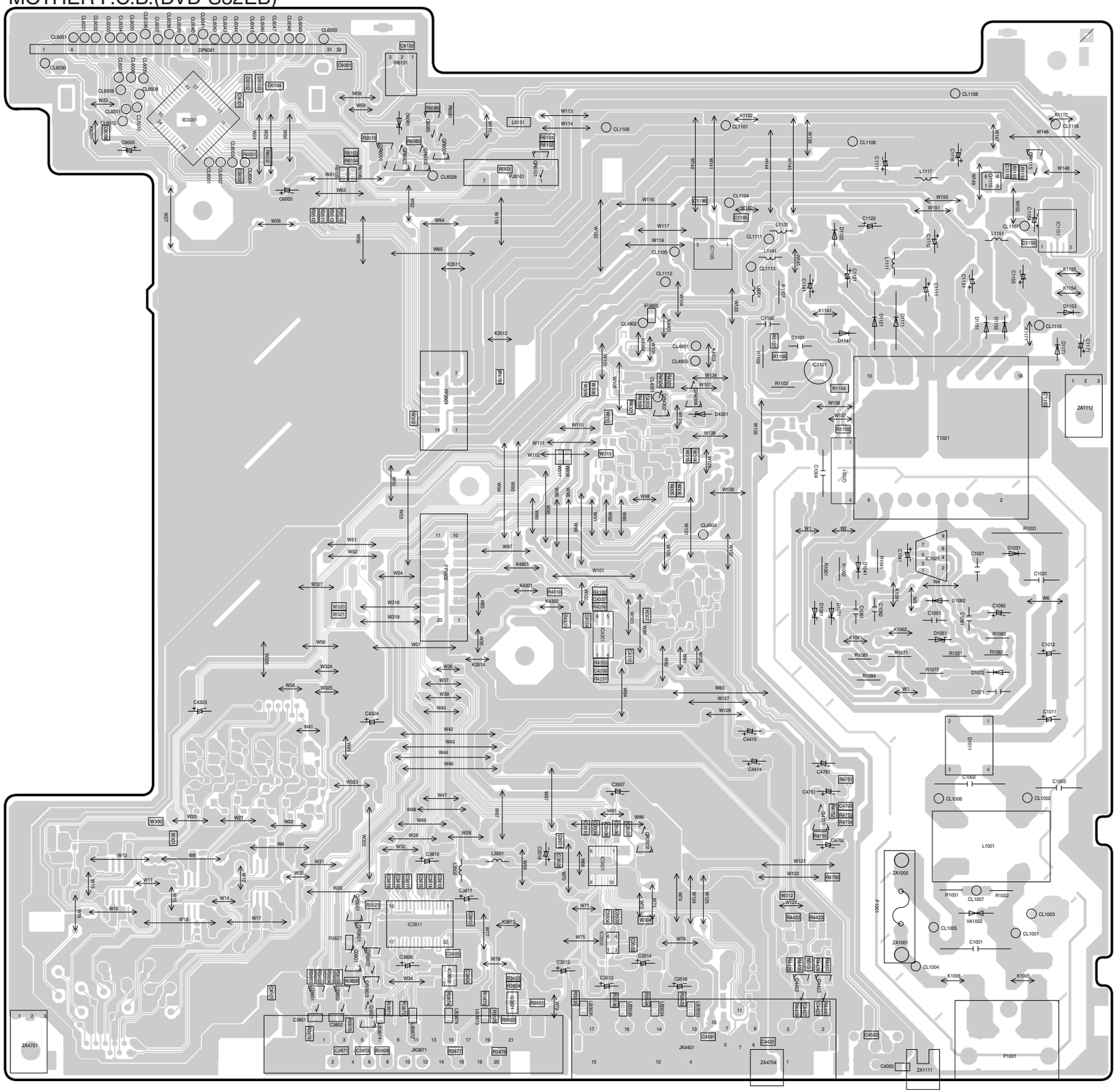
Test Point	
CL1001	A-6
CL1002	B-6
CL1003	B-6
CL1004	A-5
CL1005	A-6
CL1006	B-6
CL1007	B-6
CL1101	F-4
CL1104	E-4
CL1105	E-4
CL1106	F-5
CL1107	E-6
CL1108	F-6
CL1109	F-4
CL1111	E-5
CL1112	E-4
CL1113	E-5
CL1115	E-6
CL1116	F-6
CL4301	D-4
CL4901	E-4
CL4902	E-4
CL4903	D-4
CL4904	D-4
CL6001	E-2
CL6002	E-2
CL6003	E-2
CL6004	E-2
CL6005	F-1
CL6006	F-1
CL6007	F-1
CL6008	F-1
CL6009	F-1
CL6010	F-1
CL6011	F-1
CL6012	F-1
CL6028	E-3
CL6030	F-1
CL6031	F-1
CL6032	F-1
CL6033	F-1
CL6034	F-1
CL6035	F-1
CL6036	F-1
CL6037	F-1
CL6038	F-2
CL6039	F-2
CL6040	F-2
CL6041	F-2
CL6042	F-2
CL6043	F-2
CL6044	F-2
CL6045	F-2
CL6046	F-2
CL6047	F-2
CL6048	F-2
CL6049	F-2
CL6050	F-2
CL6051	F-1

Connector	
FP3501	D-3
FP3502	C-3
P1001	A-6
PJ6101	E-3
JK3871(EB)	A-3
JK4401	A-4

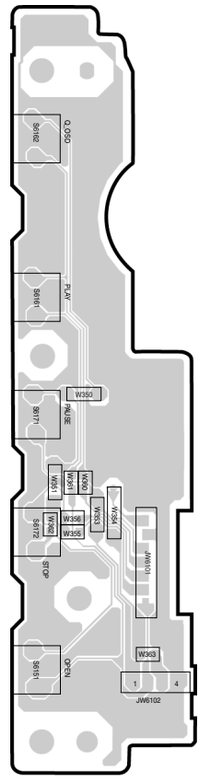
Transformer	
T1021	D-6

ADDRESS INFORMATION

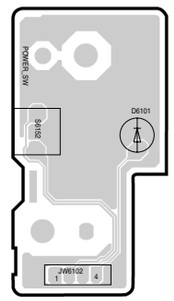
MOTHER P.C.B.(DVD-S32EB)



OPERATION P.C.B.

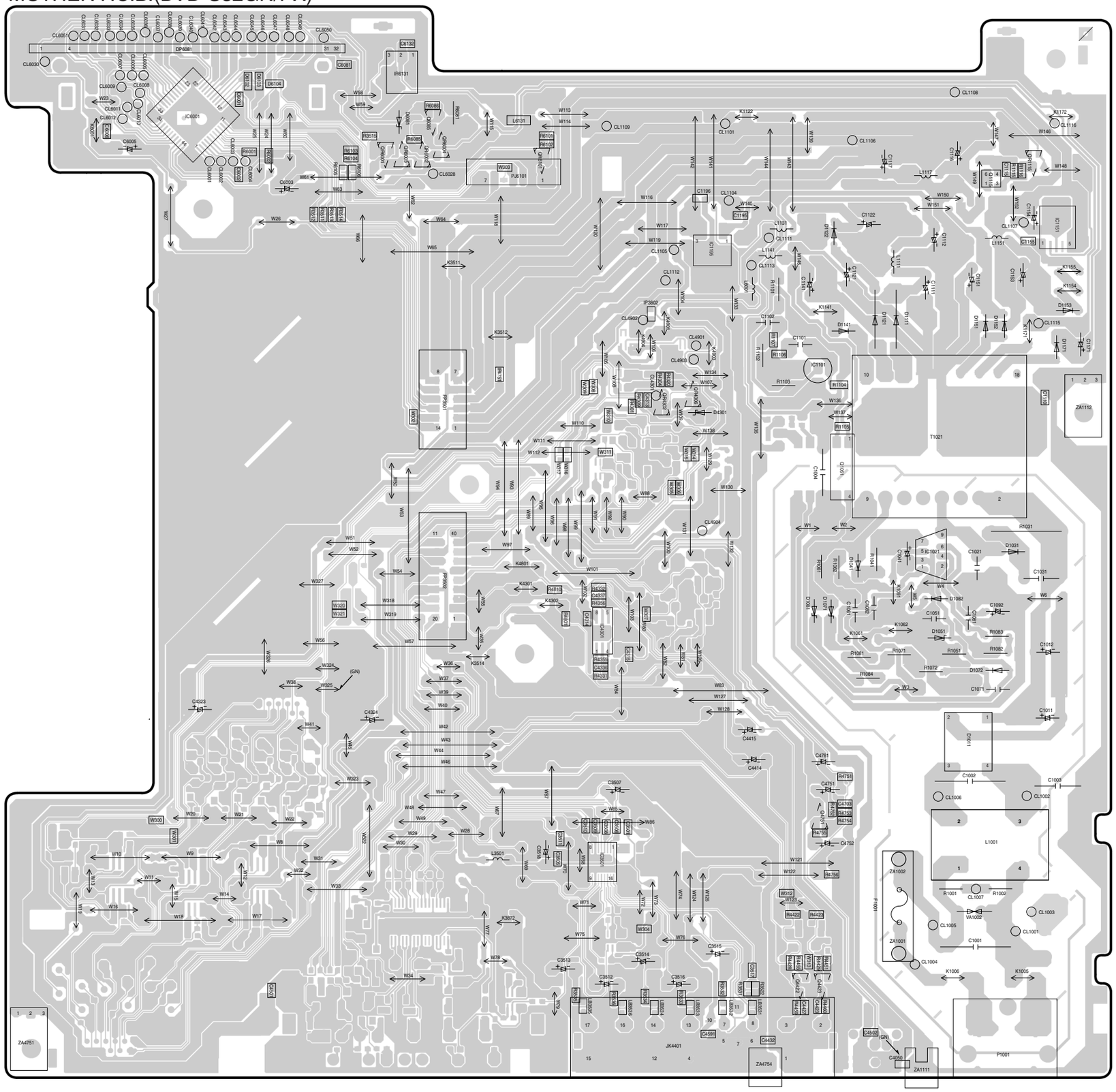


POWER SW P.C.B.



DVD-S32EB
MOTHER P.C.B.(VEP76131A)
OPERATION P.C.B.(VEP70137A)
POWER SW P.C.B.(VEP70138A)

MOTHER P.C.B.(DVD-S32GN/PX)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DP6081
CL6050
CL6030
C6132
IR6131
C6081
CL6009
CL6008
CL6011
CL6012
IC6001
D6104
W23
W58
W59
R6086
R6085
R6084
R3515
R6103
R6104
C6028
C6033
W61
W63
W26
W64
W65
K3511
K3512
K3513
K3514
W113
W114
CL1109
L6131
R6101
R6102
W503
PJ6101
CL1108
K1122
CL1101
CL1106
K1172
CL1116
W146
W148
W150
W151
C1196
CL1104
W140
L1131
CL1111
L1141
CL1113
W117
W119
CL1105
CL1112
IC1101
C1102
C1101
R1106
R1103
R1104
W136
W137
R1105
T1021
W138
D4301
W110
W111
W112
W311
W130
CL4904
CL4902
IP3802
CL4901
CL4903
W134
W107
W88
W131
W100
W101
K4801
K4301
K4302
R4810
R4335
C4337
R4336
C4335
R4331
C4330
W327
W318
W319
W320
W321
W56
W57
W324
W325
(GN)
W36
W37
W39
W40
W42
W43
W44
W46
W83
W127
W128
C4415
C4414
C4323
C4324
W41
W45
W23
W47
W48
W49
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W30
W28
C3507
W85
W86
C3503
C3501
C3502
C3510
L3501
W87
W89
W90
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W93
W94
W95
W96
W71
W75
W76
W78
K3872
W77
C3515
C3514
C3513
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W122
W312
R4422
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C4426
C4425
C4424
C4428
C4429
C4430
C4431
C4432
C4591
JK4401
ZA4754
ZA4751
C4781
R4751
C4751
C4752
R4756
C4703
R4753
R4754
R4755
W304
W305
W306
W307
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W316
W317
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W320
W321
W322
W323
W324
W325
W326
W327
W328
W329
W330
W331
W332
W333
W334
W335
W336
W337
W338
W339
W340
W341
W342
W343

MODULE P.C.B.

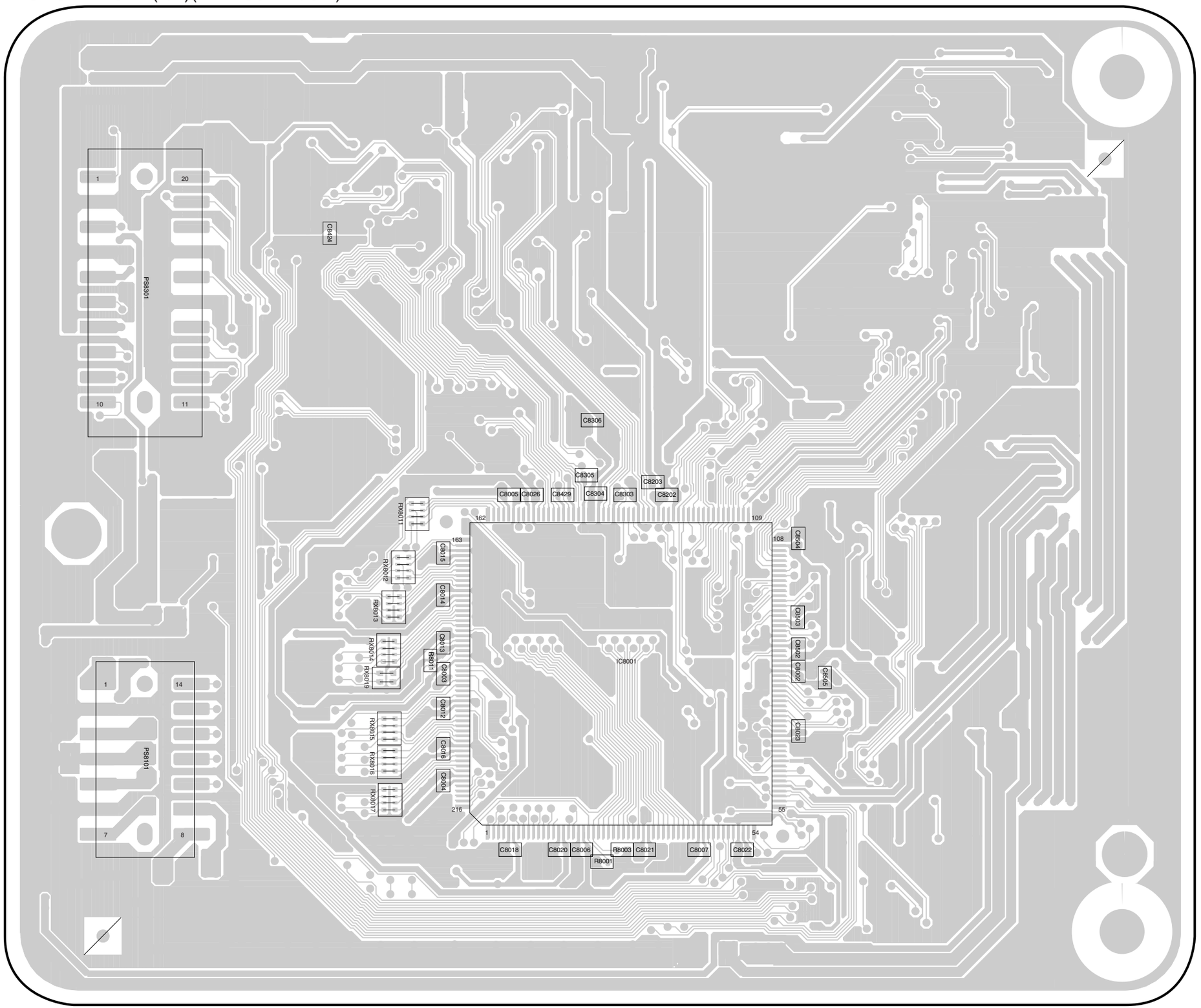
Transistor		
Q8251	C-6	C
Q8252	C-6	C
Q8421	F-5	C
Q8531	F-3	C
Q8532	F-3	C
Q8533	F-3	C
Q8551	E-3	C
Q8552	E-3	C
Q8561	E-4	C
Q8562	E-3	C
Transistor-resistor		
QR8420	E-5	C
Inntegrated Circuit		
IC8001	C-4	F
IC8051	B-5	C
IC8151	D-5	C
IC8251	C-2	C
IC8601	B-3	C
IC8606	B-3	C
IC8651	B-4	C
Test Point		
CKA1	B-2	C
CKA2	B-2	C
CKA3	B-2	C
CKA4	B-2	C
CKA5	B-2	C
CKA6	B-2	C
CKA7	B-2	C
CKB1	A-3	C
CKB2	A-2	C
CKB3	A-2	C
CKB4	A-2	C
CKB6	A-2	C
CKB8	A-2	C
CKB9	A-3	C
CKC1	F-7	C
CKC2	E-6	C
CKC3	F-7	C
CKC5	E-7	C
CKC6	E-5	C
CKC7	E-7	C
CKC8	D-7	C
CKC9	D-7	C
CKC10	D-7	C
CKC11	D-6	C
CKC12	D-6	C
CKC13	D-6	C
CKC14	D-6	C
CKC15	E-6	C
CKC16	E-6	C
CKC18	E-6	C
CKC19	E-6	C
CKC20	E-6	C
CKD1	F-6	C
CKD2	F-6	C
CKD3	F-6	C
CKD4	F-6	C
CKD6	F-5	C
CKD8	F-5	C
CKD9	F-5	C
CKD10	F-5	C
CKE1	E-1	C
CKE2	E-1	C
CKE3	E-1	C
CKE4	E-1	C
CKE5	E-2	C
CKE6	E-2	C
CKE7	F-2	C
CKE8	F-2	C
CKE10	E-2	C
CKE11	E-2	C
CKE12	F-2	C
CKE13	E-2	C
CKE14	E-2	C
CKE15	F-2	C
CKE16	E-2	C
CKE17	E-2	C
CKE18	E-2	C
CKE19	F-2	C
CKE20	E-2	C
CKE21	F-2	C
CKE22	E-2	C
CKF1	A-2	C
CKF2	A-2	C
CKF3	B-1	C
CKF4	B-1	C
CKF5	B-2	C
CKF6	B-2	C
CKG1	C-7	C
CKG2	C-6	C
CKG3	B-7	C
CKG4	B-7	C
CKG5	B-7	C
CKG7	B-6	C
CKG8	A-6	C
CKG9	B-6	C
CKG10	B-6	C

ADDRESS INFORMATION
C.....COMPONENT SIDE
F.....FOIL SIDE

MODULE P.C.B.

Test Point		
CKG11	B-6	C
CKG12	B-6	C
CKG13	B-6	C
CKG14	B-6	C
CKH1	D-2	C
CKH3	D-2	C
CKH5	D-2	C
CKH6	D-2	C
CKH7	D-2	C
CL8001	C-3	C
CL8002	C-3	C
CL8003	B-6	C
CL8004	A-4	C
CL8005	B-3	C
CL8006	A-3	C
CL8007	A-3	C
CL8008	B-3	C
CL8009	B-3	C
CL8010	B-3	C
CL8011	A-3	C
CL8012	A-4	C
CL8013	A-4	C
CL8014	A-4	C
CL8015	D-2	C
CL8016	D-2	C
CL8017	A-2	C
CL8019	F-3	C
CL8020	D-2	C
CL8025	B-3	C
CL8026	B-3	C
CL8032	C-3	C
CL8033	C-3	C
CL8034	C-3	C
CL8035	C-4	C
CL8036	D-4	C
CL8037	D-5	C
CL8038	D-5	C
CL8039	D-5	C
CL8040	D-5	C
CL8042(PX)	B-6	C
CL8043(PX)	B-5	C
CL8041	C-6	C
CL8201	C-2	C
CL8211	D-4	C
CL8212	D-4	C
CL8213	D-4	C
CL8221	D-3	C
CL8222	D-3	C
CL8225	D-4	C
CL8226	D-3	C
CL8231	B-3	C
CL8232	B-3	C
CL8251	D-2	C
CL8252	D-2	C
CL8261	D-2	C
CL8262	D-2	C
CL8421	E-5	C
CL8422	E-5	C
CL8423	E-5	C
CL8424	E-5	C
CL8425	E-5	C
CL8426	E-5	C
CL8427	E-5	C
CL8428	E-5	C
CL8431	E-6	C
CL8432	E-6	C
CL8433	E-6	C
CL8434	E-5	C
CL8435	E-5	C
CL8436	F-5	C
CL8510	E-3	C
CL8511	C-3	C
CL8512	C-3	C
CL8513	E-2	C
CL8521	E-2	C
CL8541	D-3	C
CL8551	E-3	C
CL8561	E-4	C
CL8571	F-4	C
CL8572	B-3	C
CL8652	C-4	C
CL8653	A-4	C
CL8654	B-5	C
CL8701	C-3	C
CL8702	C-2	C
Connector		
FP8251	A-2	C
FP8252	E-1	C
FP8531	F-2	C
PS8101	E-1	F
PS8301	B-1	F

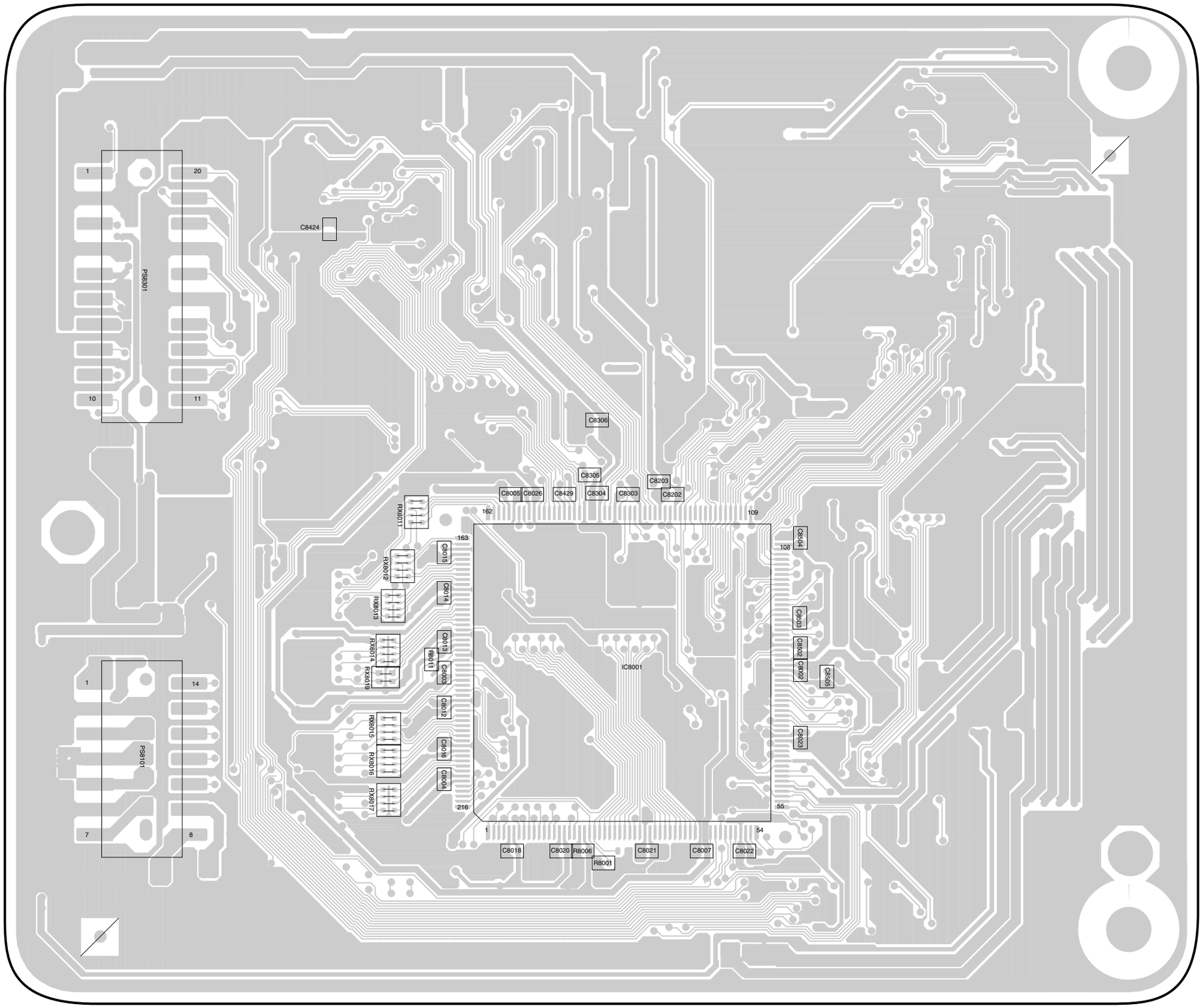
MODULE P.C.B. (2/2)(DVD-S32EB/GN)



(FOIL SIDE)

DVD-S32EB/GN
MODULE P.C.B.(2/2)(VEP79120A:EB)
(VEP79120E:GN)

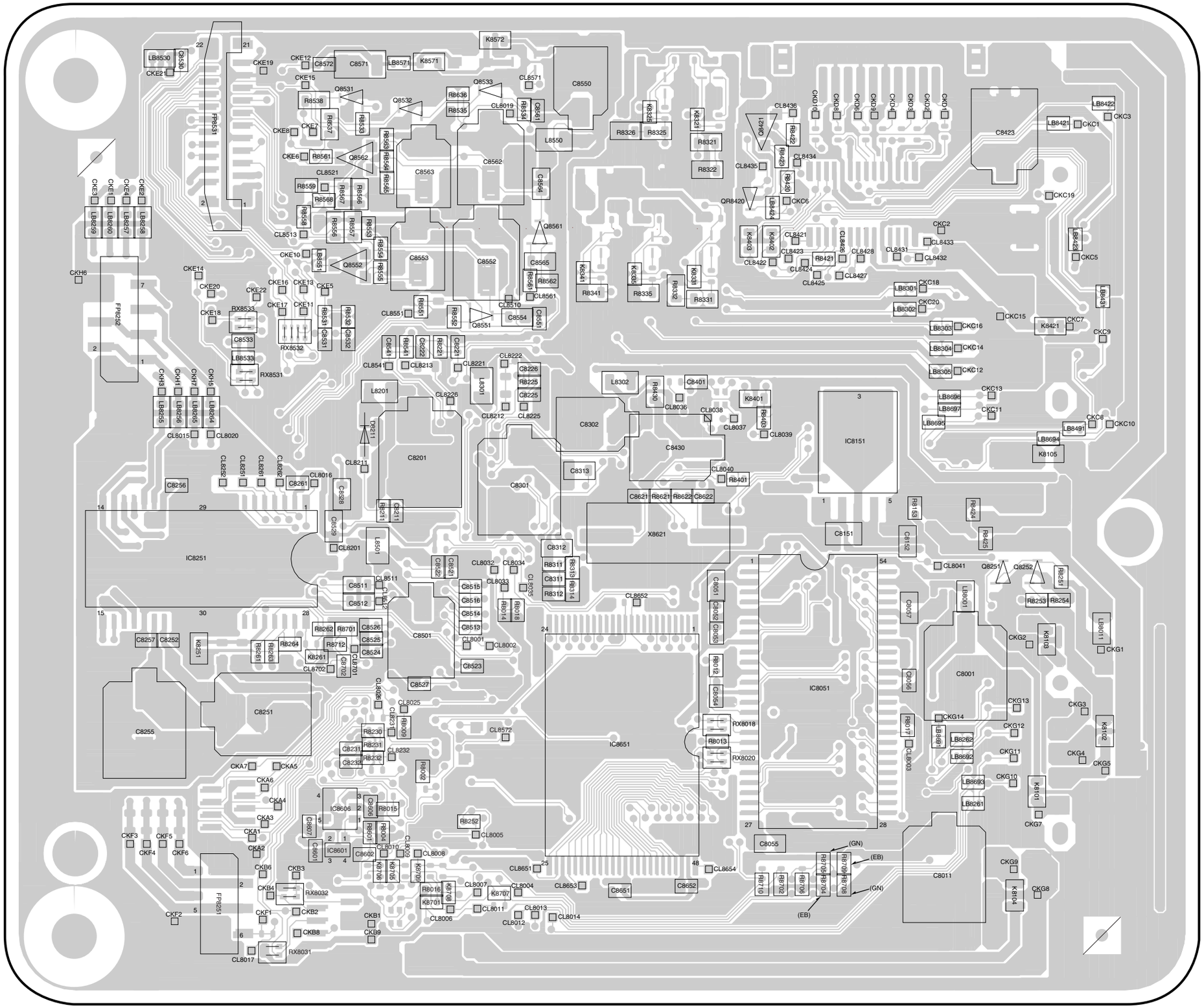
MODULE P.C.B.(2/2)(DVD-S32PX)



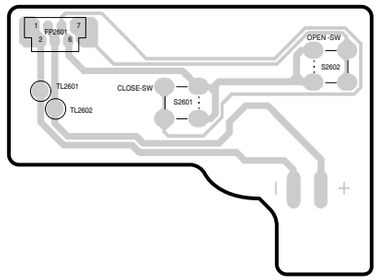
(FOIL SIDE)

DVD-S32PX
MODULE P.C.B.(2/2)(VEP79121A)

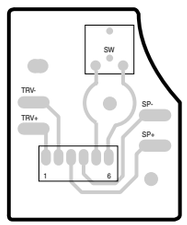
MODULE P.C.B. (1/2)(DVD-S32EB/GN)



LOADING MOTOR P.C.B.



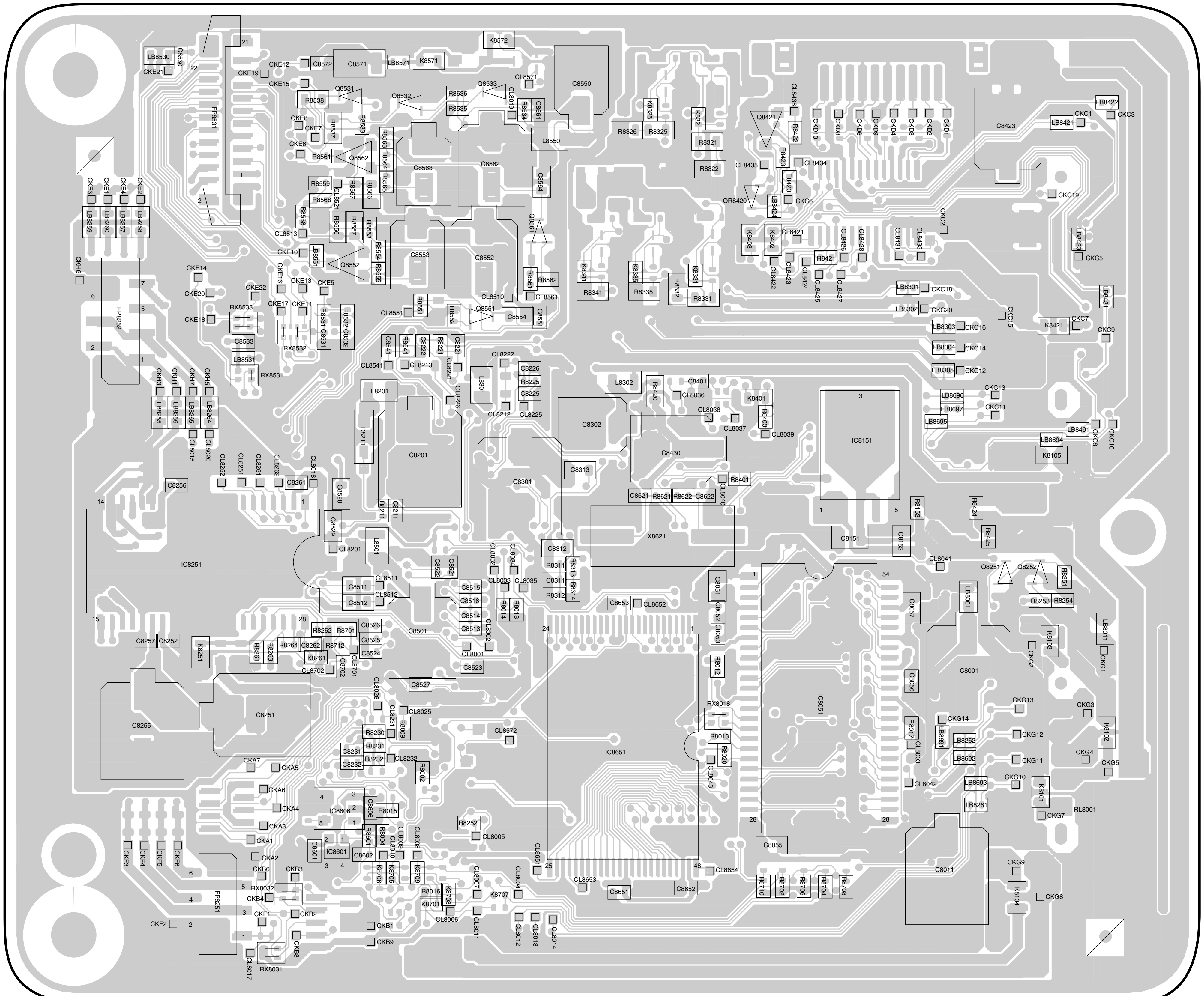
TRV AND SP MOTOR P.C.B.



(COMPONENT SIDE)

DVD-S32EB/GN
MODULE P.C.B.(1/2)(VEP79120A:EB)
(VEP79120E:GN)
LOADING MOTOR P.C.B.(VEP70114A-1)

MODULE P.C.B.(1/2)(DVD-S32PX)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FP8531
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Q8532
Q8533
R8538
R8636
R8535
CL8571
CL8019
R8534
C8561
C8550
CKE8
CKE7
CKE6
R8537
R8533
R8563
R8564
R8565
R8561
Q8562
C8563
C8562
L8550
C8564
R8559
R8568
CL8521
R8567
R8566
R8558
R8556
R8557
R8553
CL8513
CKE10
LB8551
Q8552
R8554
R8555
C8553
C8552
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R8561
R8562
CL8510
CL8561
CKE3
CKE1
CKE4
CKE2
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LB8260
LB8257
LB9258
CKH6
FP8252
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CKE22
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C8533
LB8531
RX8531
CKE16
CKE13
CKE5
CKE17
CKE11
RX8532
R8531
C8531
R8532
C8532
CL8551
R8551
R8552
Q8551
C8554
C8551
C8541
R8541
C8222
R8221
C8221
CL8541
CL8213
CL8221
CL8222
C8226
R8225
C8225
CL8212
CL8225
L8301
L8201
CL8226
D8211
C8201
CKH3
CKH1
CKH7
CKH5
LB8255
LB8256
LB8265
LB8264
CL8015
CL8020
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CL8251
CL8261
CL8262
CL8016
C8261
C8256
C8528
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C8211
C8529
CL8201
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C8522
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CL8512
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C8514
C8513
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C8526
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R8264
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R8712
K8261
R8261
R8263
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C8702
CL8701
C8257
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K8251
CL8002
CL8001
C8523
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C8255
C8251
CL8026
CL8025
CL8231
R8009
R8230
R8231
C8231
C8232
R8232
CL8232
R8002
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CKA5
CKA6
CKA4
CKA3
CKA1
CKA2
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C8606
R8015
R8601
R8004
CL8009
CL8010
CL8008
C8601
IC8601
C8602
K8706
K8705
K8709
R8252
CL8005
CKF3
CKF4
CKF5
CKF6
FP8251
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CKB6
CKB3
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CKB4
CKF1
CKB2
CKF2
CKB1
CKB9
CKB8
CL8017
RX8031
R8016
K8708
K8701
CL8006
CL8007
CL8011
K8707
CL8004
CL8012
CL8013
CL8014
CL8572
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CL8034
CL8033
CL8035
R8014
R8018
C8301
C8302
L8302
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C8401
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R8423
CL8434
CL8435
R8420
QR8420
LB8424
CKC6
CKD10
CKD8
CKD6
CKD9
CKD4
CKD3
CKD2
CKD1
K8403
K8402
CL8421
CL8426
CL8428
CL8431
CL8433
CKC2
CL8422
CL8423
CL8424
CL8425
CL8427
R8421
K8341
R8341
K8335
R8335
R8332
K8331
R8331
LB8301
CKC18
LB8302
CKC20
LB8303
CKC16
LB8304
CKC14
LB8305
CKC12
CKC15
K8421
CKC7
CKC9
LB8431
C8423
LB8422
CKC3
CKC1
LB8421
CKC19
LB8423
CKC5
CKC13
CKC11
LB8696
LB8697
LB8695
LB8491
CKC8
CKC10
LB8694
K8105
IC8151
3
1
5
R8153
R8424
R8425
C8151
C8152
CL8041
Q8251
Q8252
R8251
R8253
R8254
LB8001
C8057
K8103
CKG2
LB8011
CKG1
C8001
C8056
CKG13
CKG3
CKG14
R8017
CL8003
LB8691
LB8262
LB8692
CKG12
CKG11
K8102
CKG4
CKG5
CL8042
LB8693
CKG10
LB8261
K8101
RL8001
CKG7
C8011
CKG9
K8104
CKG8

(COMPONENT SIDE)

F
E
D
C
B
A

1 2 3 4 5 6 7 8 9

DVD-S32PX
MODULE P.C.B.(1/2)(VEP79121A)

VIDEO MAIN SIGNAL

IC8001
(DV4.1)

OPTICAL PICKUP UNIT

95 RFINN
96 RFINP

IC8651
(8M FLASH ROM)

29 DQ0
31
33
35
38
40
42
44
30
32
34
36
39
41
43
45 DQ15

DATA

ADDRESS
A0 25
A7 18
A8 8
A15 1

212 A0
42
41
40
39
38
37
36 A7
29 A8
28
27
26
25
24
23
22 A15

ADDRESS

ADDRESS
A16 48
A17 17
A18 16

21 A16
35 A17
34 A18

ADDRESS

XCE 26
XWE 11
XOE 28

214 NEXOE
31 NEXWE
213 NEXCE

215 EXDT0
1
3
7
9
11
13
17
216
2
4
8
10
12
14
18 EXDT15

DATA

DAC5OUT 139 C
DAC4OUT 138 Y
DAC1OUT 131 Y/PY/G
DAC2OUT 130 CB/PB/B
DAC3OUT 129 CR/PR/R

MEMORY ADDRESS 11bit

MA0 201
MA1 203
MA2 207
MA3 209
MA4 208
MA5 206
MA6 202
MA7 200
MA8 198
MA9 194
MA10 199

MEMORY DATA 16bit

MDQ0 160
MDQ1 162
MDQ2 164
MDQ3 168
MDQ4 170
MDQ5 172
MDQ6 176
MDQ7 178
MDQ8 177
MDQ9 175
MDQ10 171
MDQ11 169
MDQ12 167
MDQ13 163
MDQ14 161
MDQ15 159

BA0 193
NCSM 190
NCAS 188
NRAS 189
NWE 181
DQM0 179
DQM1 180
MCK 183
MCK1 185
NRST 70

FROM IC8601-1PIN
FROM IC8606-1PIN

IC3501
(VIDEO DRIVE)

2 CIN
4 YIN
6 CYIN
8 CBIN
9 CRIN

BIAS
CLAMP
CLAMP
BIAS
BIAS

4dB
LPF 6.75MHz
-6dB
8dB
2dB
75Ω DRIVER

LPF 6.75MHz
LPF 13.5MHz
LPF 6.75MHz
LPF 6.75MHz

BIAS
1.4V
MUTE

MUTE

COUT 16
CVBS OUT 15
YOUT 14
CYOUT 13
CBOUT 12
CROUT 11

JK4401
VIDEO OUT

JK4401
S-VIDEO OUT

JK4401
Y
PB
PR

IC8001-131
0.92Vp-p(20usec./div.)

IC8001-139
0.6Vp-p(20usec./div.)

IC8001-138
0.92Vp-p(20usec./div.)

IC8001-129
0.49Vp-p(20usec./div.)

IC8001-130
0.49Vp-p(20usec./div.)

IC3501-15
2.0Vp-p(20usec./div.)

IC3501-16
1.5Vp-p(20usec./div.)

IC3501-13,14
2.0Vp-p(20usec./div.)

IC3501-11
1.2Vp-p(20usec./div.)

IC3501-12
1.2Vp-p(20usec./div.)

IC8051
(16M SDRAM)

MEMORY ADDRESS 11bit

21 A0
22 A1
23 A2
24 A3
27 A4
28 A5
29 A6
30 A7
31 A8
32 A9
20 A10

MEMORY DATA 16bit

2 DQ0
3 DQ1
5 DQ2
6 DQ3
8 DQ4
9 DQ5
11 DQ6
12 DQ7
39 DQ8
40 DQ9
42 DQ10
43 DQ11
45 DQ12
46 DQ13
48 DQ14
49 DQ15

19 BA
18 /CS
16 /CAS
17 /RAS
15 /WE
14 LDQM
36 UDQM
35 CLK

DVD-S32PX
VIDEO BLOCK DIAGRAM

VIDEO MAIN SIGNAL

IC8001
(DV4.1)

OPTICAL PICKUP UNIT

95 RFINN
96 RFINP

IC8651
(8M FLASH ROM)

29 DQ0
31
33
35
38
40
42
44
30
32
34
36
39
41
43
45 DQ15

ADDRESS: A0 25, A7 18, A8 8, A15 1

ADDRESS: A16 48, A17 17, A18 16

XCE 26, XWE 11, XOE 28

212 A0
42
41
40
39
38
37
36 A7
29 A8
28
27
26
25
24
23
22 A15

ADDRESS

21 A16
35 A17
34 A18

ADDRESS

214 NEXOE
31 NEXWE
213 NEXCE

215 EXDT0
1
3
7
9
11
13
17
216
2
4
8
10
12
14
18 EXDT15

DATA

DAC5OUT 139 C
DAC4OUT 138 Y
DAC1OUT 131 Y/PY/G
DAC2OUT 130 CB/PB/B
DAC3OUT 129 CR/PR/R

MA0 201
MA1 203
MA2 207
MA3 209
MA4 208
MA5 206
MA6 202
MA7 200
MA8 198
MA9 194
MA10 199
DQM3 192

MEMORY ADDRESS 12bit

MDQ0 160
MDQ1 162
MDQ2 164
MDQ3 168
MDQ4 170
MDQ5 172
MDQ6 176
MDQ7 178
MDQ8 177
MDQ9 175
MDQ10 171
MDQ11 169
MDQ12 167
MDQ13 163
MDQ14 161
MDQ15 159

MEMORY DATA 16bit

NCSM 190
NCAS 188
NRAS 189
NWE 181
MCK 183
MCK1 185
NRST 70

FROM IC8601-1PIN
FROM IC8606-1PIN

IC3501
(VIDEO DRIVE)

2 CIN — BIAS — 4dB — LPF 6.75MHz — 2dB — 75Ω DRIVER — COUT 16
4 YIN — CLAMP — 4dB — LPF 6.75MHz — -6dB / 8dB — 75Ω DRIVER — CVBS OUT 15 / YOUT 14
BIAS — 1.4V — MUTE
6 CYIN — CLAMP — 4dB — LPF 13.5MHz — 2dB — 75Ω DRIVER — CYOUT 13
8 CBIN — BIAS — 4dB — LPF 6.75MHz — 2dB — 75Ω DRIVER — CBOUT 12
9 CRIN — BIAS — 4dB — LPF 6.75MHz — 2dB — 75Ω DRIVER — CROUT 11

MUTE

JK4401 VIDEO OUT
JK4401 S-VIDEO OUT
JK4401 Y
PB
PR

IC8001-131
0.92Vp-p(20usec./div.)

IC8001-139
0.6Vp-p(20usec./div.)

IC8001-138
0.92Vp-p(20usec./div.)

IC8001-129
0.49Vp-p(20usec./div.)

IC8001-130
0.49Vp-p(20usec./div.)

IC3501-15
2.0Vp-p(20usec./div.)

IC3501-16
1.5Vp-p(20usec./div.)

IC3501-13,14
2.0Vp-p(20usec./div.)

IC3501-11
1.2Vp-p(20usec./div.)

IC3501-12
1.2Vp-p(20usec./div.)

IC8051
(64M SDRAM)

23 A0
24 A1
25 A2
26 A3
29 A4
30 A5
31 A6
32 A7
33 A8
34 A9
22 A10
35 A11

MEMORY ADDRESS 12bit

2 DQ0
4 DQ1
5 DQ2
7 DQ3
8 DQ4
10 DQ5
11 DQ6
13 DQ7
42 DQ8
44 DQ9
45 DQ10
47 DQ11
48 DQ12
50 DQ13
51 DQ14
53 DQ15

MEMORY DATA 16bit

19 /CS
17 /CAS
18 /RAS
16 /WE
38 CLK

DVD-S32GN
VIDEO BLOCK DIAGR AM

VIDEO MAIN SIGNAL

IC3501-11
1.2Vp-p(20usec./div.)

IC3501-12
1.2Vp-p(20usec./div.)

IC3501-15
2.0Vp-p(20usec./div.)

IC3501-13
2.0Vp-p(20usec./div.)

IC3501
(VIDEO DRIVE)

IC3502

JK4401
VIDEO OUT

JK4401
SCART OUT

Y

PB

PR

RGBH-MCMT

FROM IC8001-120PIN

IC3811
(VIDEO DRIVE)

IC3802

JK3871

RED I/O

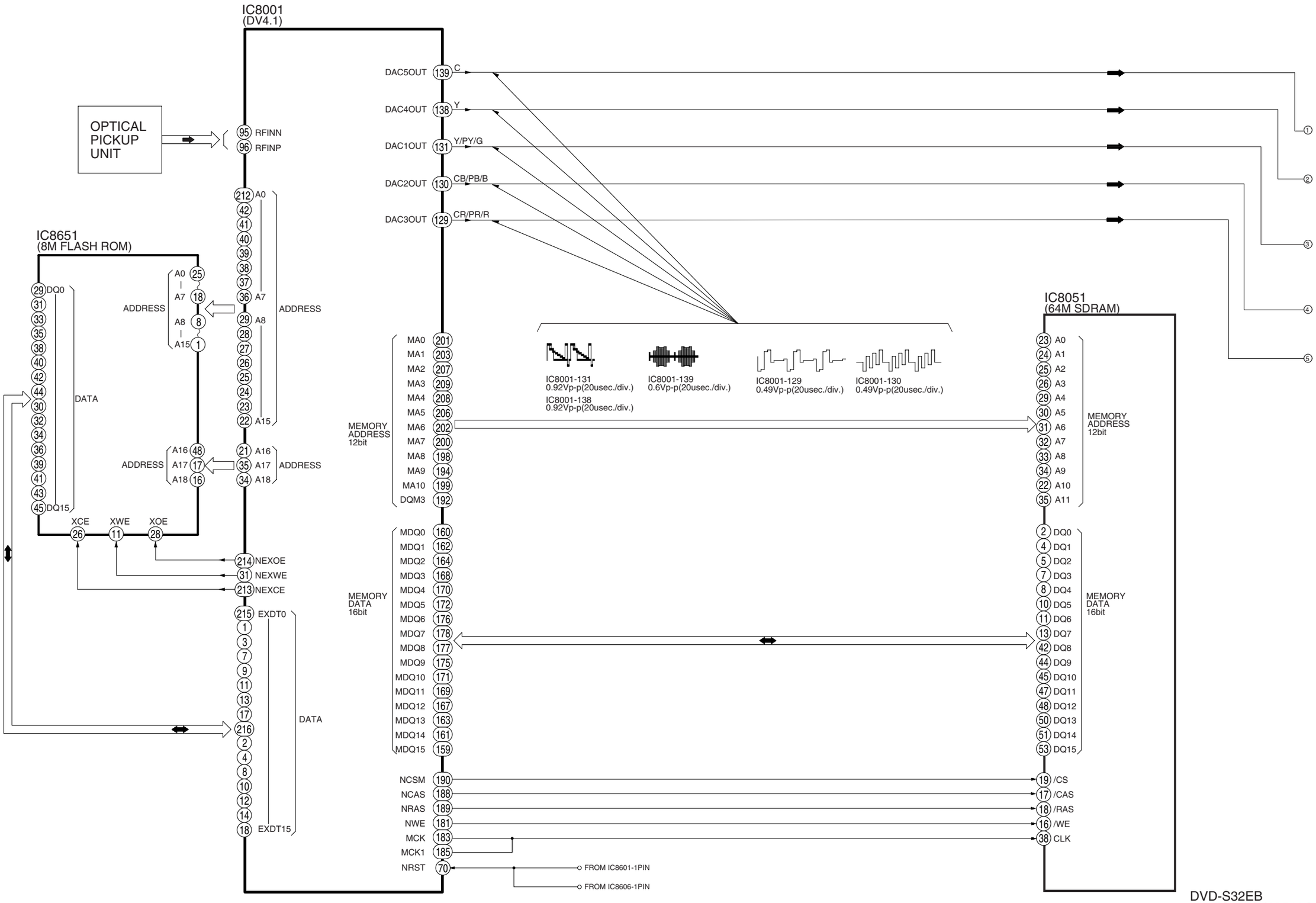
GREEN I/O

V-OUT

BLUE I/O

FROM IC8001-57PIN

DVD-S32EB
VIDEO BLOCK DIAGRAM



DVD-S32EB
VIDEO BLOCK DIAGRAM

RF SIGNAL　MOTOR DRIVE SIGNAL　TRACKING ERROR SIGNAL　FOCUS ERROR SIGNAL

IC8001
(DV4.1)

IC8251
(MOTOR DRIVE)

OPTICAL PICKUP UNIT

PHOTO DETECTOR

T1

(CD) A1 A2 A4 A3

T2

HEAD AMP

(DVD) B1 B2 B4 B3

LASER DIODE(DVD)

LASER DIODE(CD)

VIN6(DVD/CD) 114
VIN7(DVD/CD) 115
VIN8(DVD/CD) 116
VIN5(DVD/CD) 113
VIN9(CD) 112
VIN10(CD) 111
DRV4(SW) 63
LPC01 104
LPC1 103
LPC02 106
RFINN 95
RFINP 96

CLOSE SW
TRAY CLOSE 64
S2601
OPEN SW
TRAY OPEN 59
S2602

67 TRSDRV → 6 VIN2
126 TRDRV → 22 VIN4
127 FODRV → 23 VIN5
66 SPDRV → 5 VIN1
122 AD1 ← 27 OPOUT
62 TRAY-DRY → 7 VIN3
30 SP MUTE → 3 CH1 MUTE
47 TRVFT MUTE → 4 CH2,4,5 MUTE
60 TRAY_MUT → 1 MUTE3 CH3 MUTE

BIAS1
BIAS2

LEVEL SHIFT

VO2+ 12
VO2- 11
TRAVERS MOTOR

OPIN+ 25
VO1+ 14
VO1- 13
OPIN- 26
SPINDLE MOTOR

VO3+ 10
VO3- 9
M2601
LOADING MOTOR

IC8251-15,16,17,18
4Vp-p(0.5msec./div.)

OPTICAL PICKUP UNIT
ACTUATOR
TRACKING COIL
FOCUS COIL

VO4+ 17　ACT T+
VO4- 18　ACT T-
VO5+ 15　ACT F+
VO5- 16　ACT F-

DVD-S32EB/GN/PX
SERVO BLOCK DIAGRAM

PRIMARY CIRCUIT | SECONDARY CIRCUIT

AC SOCKET
P1001

VA1002
SURGE KILLER

F1001

L1001
LINE FILTER

D1011,C1011
RECTIFIER

T1021
POWER TRANSFORMER

IC1021
CONSTANT VOLTAGE CONTROL

Q1051
PHOTO COUPLER

IC1101
SHUNT REG.

IC1195
REG.

Q1115
REG.

QR1115
SWITCH

IC1151
(REG.M+9V)
ON/OFF
IN OUT

QR6001,QR6002,QR6003,Q6085
SWITCH

LED DRIVE
QR6101

D6101
STANBY

10 NSW+12V
NSW-12V
VCC
VEE
AUDIO OP AMPS

11 NSW+2.7V

12 A+5V
D+5V

15 M+9V

16 FLH-

17 FLH+

NSW+3.3V

IC6001
(OPERATION CPU)

30 VEE

43 VDD

13 VDD

N.POWER OFF Ⓛ

FL

GR1 42
GR4 39

SG16 29
SG4 17

SG3 16
SG2 15
SG1 14

PAUSE S6171
QUICK OSD S6162
STOP S6172

K1 10

POWER S6152
PLAY S6161
OPEN/CLOSE S6151

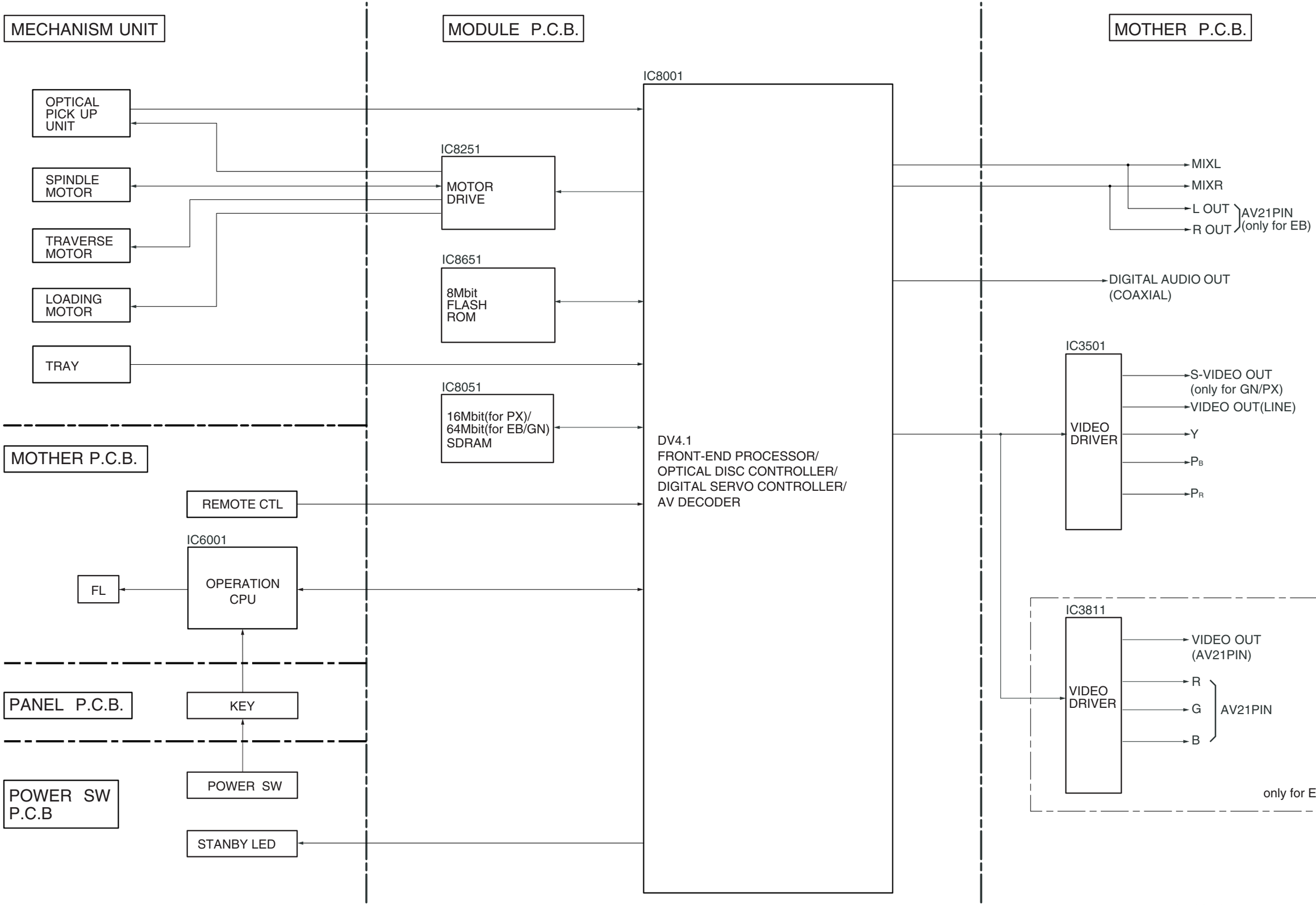
K2 11

IC8001
(DV4.1)

DOUT 6 → 53 P6
DIN 7 ← 54 P7
CLK 8 ← 55 P8
STB 9 ← 56 P9

191 DQM2

DVD-S32EB/GN/PX
POWER SUPPLY BLOCK DIAGRAM



DVD-S32EB/GN/PX
OVERALL BLOCK DIAGRAM

IC8001
(DV4.1)

⇦ AUDIO MAIN SIGNAL

L OUT (144)

R OUT (146)

IC4301
2 AMP 1

IC4301
6 AMP 7

JK4401
MIX L OUT

MIX R OUT

JK3871
(only for EB)

21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

L OUT

R OUT

0.7Vp-p(0.5msec./div.)

Q4422
MUTE

QR4302
MUTE

Q4423
MUTE

Q3852
MUTE

Q3851
MUTE

(only for EB)

ADOUT (151)

QR4306
SWITCHING

IECOUT (152)

Q4751
AMP

JK4401
DIGITAL
AUDIO OUT
(COAXIAL)

DVD-S32EB/GN/PX
AUDIO BLOCK DIAGRAMA